Abstracts

Waveform relaxation synthesis of time-domain characteristic model of coupled transmission lines from FDTD simulation

Qing-Xin Chu and Fung-Yuel Chang. "Waveform relaxation synthesis of time-domain characteristic model of coupled transmission lines from FDTD simulation." 1997 MTT-S International Microwave Symposium Digest 3. (1997 Vol. III [MWSYM]): 1785-1788.

By use of a waveform relaxation iteration algorithm and numerical convolution and deconvolution techniques, a time-domain characteristic model of symmetric two-conductor coupled transmission lines is synthesized from the terminal responses which are simulated by the FDTD method. The extracted model is applied to simulate the responses of the coupled lines with step pulse excitation and typical loads to validate the accuracy of the model. Results favorably compare with the direct FDTD simulation.

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