Abstracts

The Generalized Method of Characteristics for Waveform Relaxation Analysis of Lossy Coupled Transmission Lines (Dec. 1989 [T-MTT])

F.-Y. Chang. "The Generalized Method of Characteristics for Waveform Relaxation Analysis of Lossy Coupled Transmission Lines (Dec. 1989 [T-MTT])." 1989 Transactions on Microwave Theory and Techniques 37.12 (Dec. 1989 [T-MTT] (1989 Symposium Issue)): 2028-2038.

The transient response of lossy coupled transmission lines is simulated by iterative waveform relaxation analyses of equivalent disjoint networks constructed with congruence transformers, FFT waveform generators, and characteristic impedances synthesized by the Pade approximation. A phenomenal two order reduction of CPU time and one order savings in computer memory have been achieved. A lossy directional coupler is simulated for illustration.

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