

Abstracts

A Circuit Model of a System of VLSI Interconnects for Time Response Computation

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A new computational model based on the spectral-domain approach for the characterization of a dispersive multiconductor system is developed for time response computation. The model consists of two identical impedance networks and equivalent voltage-controlled voltage sources and it is particularly suitable for timing analysis. Since full-wave analysis is employed for the derivation, the computational model is valid at very high frequencies when the longitudinal field components are no longer negligible.

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