

FDTD Modeling of Switching Noise in Multi-Layered Digital Circuits with CMOS Inverters and Passive Lumped Elements

M. Fujii, H. Murase and S. Kobayashi. "FDTD Modeling of Switching Noise in Multi-Layered Digital Circuits with CMOS Inverters and Passive Lumped Elements." 1996 MTT-S International Microwave Symposium Digest 96.3 (1996 Vol. III [MWSYM]): 1787-1790.

Multi-layered digital circuits such as LSI packages, has been analyzed by using a Finite-Difference Time-Domain (FDTD) method. Linear lumped elements, resistors and capacitors, and nonlinear lumped elements, CMOS drivers, are included in the analyses. Various noises as well as digital pulse propagation in multi-layered circuits are effectively analyzed by this technique.

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