Abstracts

Application of quasi-static method of moments for the design of OC-192 and OC-768 fiber optic integrated circuits

C.-W.P. Huang, Jian-Wen Bao, N. Dwarakanath and S. Al-Kuran. "Application of quasi-static method of moments for the design of OC-192 and OC-768 fiber optic integrated circuits." 2002 Radio Frequency Integrated Circuits (RFIC) Symposium 02. (2002 [RFIC]): 97-100.

A novel global layout modeling technique based on a quasi-static method of moments (MoM) analysis for the design of 10 and 40 Gbit/sec fiber optic integrated circuits is presented. Theory of the quasi-static MoM technique is reviewed and validated for millimeter wave applications. This technique enables rigorous circuit/layout co-simulation with minimum computational resources compared with traditional electromagnetic solvers. Excellent agreement between simulated and measured results is found in both time and frequency domains.

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