Abstracts

A synthesis technique of time-domain interconnect models by MIMO type of selective orthogonal least-square method

M. Suzuki, H. Miyashita, A. Kamo, T. Watanabe and H. Asai. "A synthesis technique of time-domain interconnect models by MIMO type of selective orthogonal least-square method." 2001 Transactions on Microwave Theory and Techniques 49.10 (Oct. 2001, Part I [T-MTT] (Mini-Special Issue on Electrical Performance of Electronic Packaging (EPEP))): 1708-1714.

This paper describes an efficient synthesis technique of time-domain models for interconnects characterized by sampled data. In this method, poles are derived from the sampled data in the frequency domain. Next, the dominant poles and the residues are obtained efficiently by multiinput-multioutput type of selective orthogonal least-square method. Furthermore, time-domain models are derived from the frequency-domain models. Finally, the accuracy and efficiency of the proposed method are substantiated by transient simulation of example circuits using this model.

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