Abstracts

Analysis of differential vias in a multilayer parallel plate environment using a physics-based CAD model

R. Abhari, G.V. Eleftheriades and E. van Deventer-Perkins. "Analysis of differential vias in a multilayer parallel plate environment using a physics-based CAD model." 2001 MTT-S International Microwave Symposium Digest 01.3 (2001 Vol. III [MWSYM]): 2031-2034 vol.3.

A lumped-element physics-based equivalent circuit for differential vias in multilayer parallel plate environments is presented. The TEM parallel plate mode excited by differential vias is quantified by implementing the developed model in a commercial CAD tool. The corresponding CAD simulations are performed in a matter of a few seconds on an Ultra 5 SUN workstation and compare well with Time Domain Reflectometry (TDR) measurements and Finite Difference Time Domain (FDTD) simulations.

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