Abstracts

The Use of Side Wall Images to Compute Package Effects in MoM Analysis of MMIC Circuits

R.W. Jackson. "The Use of Side Wall Images to Compute Package Effects in MoM Analysis of MMIC Circuits." 1993 Transactions on Microwave Theory and Techniques 41.3 (Mar. 1993 [T-MTT]): 406-414.

A novel formulation is presented for the method of moments solution of shielded, enclosed microstrip MMIC circuits. The technique involves first computing a circuit's mutual impedance characteristics with no lateral enclosure and then adding a correcting term resulting from the images introduced by lateral side walls. The method is especially useful for determining the impact of low Q package resonances in very large packages. Large lateral enclosure size does not degrade the efficiency of this technique. The importance of the TM/sub 0/ parallel plate mode in MMIC circuit coupling is emphasized.

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