

Abstracts

A Rigorous Study of Wire-Bonding and Via-Hole Effects on GaAs Field Effect Transistors

T.-S. Horng. "A Rigorous Study of Wire-Bonding and Via-Hole Effects on GaAs Field Effect Transistors." 1995 MTT-S International Microwave Symposium Digest 95.2 (1995 Vol. II [MWSYM]): 785-788.

A new procedure is presented for evaluation of the wire-bonding and via-hole effects on a GaAs FET at microwave frequencies. The analysis not only provides a rigorous characterization of the passive elements, like bond-wires, via-holes and microstrips, on a GaAs FET but also includes their mutual coupling with the active region. For practical applications, the corresponding gate, source and drain inductances, which are the important extrinsic parameters of a CAD oriented equivalent circuit model, are extracted based on the calculated S parameters.

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