Abstracts

Experimental Determination of High-Speed GaAs Digital Circuit Interconnect Parameters

K. Kiziloglu, N. Dagli, G.L. Matthaei and S.I. Long. "Experimental Determination of High-Speed GaAs Digital Circuit Interconnect Parameters." 1991 MTT-S International Microwave Symposium Digest 91.2 (1991 Vol. II [MWSYM]): 639-642.

Coplanar strips that are representative of on-chip high-speed digital circuit interconnects have been fabricated on GaAs and characterized up to 18 GHz. Strip widths of 4, 6, and 8 µm with strip spacings of 4 and 8 µm and conductor thicknesses of 2500Å and 5000Å were used in the experiments. Line parameters such as resistance, capacitance, inductance per unit length, propagation constant, etc. were extracted from these measurements. Measurement results confirm the quasi-TEM properties of such interconnects.

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