

Abstracts

Nonlinear modelling of SiGe HBTs up to 50 GHz

C. Rheinfelder, M. Rudolph, F. Beisswanger and W. Heinrich. "Nonlinear modelling of SiGe HBTs up to 50 GHz." 1997 MTT-S International Microwave Symposium Digest 2. (1997 Vol. II [MWSYM]): 877-880.

A new large-signal model for SiGe HBTs is presented that includes nonideal leakage currents, Kirk-effect, and thermal behavior. The parameters are extracted from measurements using a special procedure. The model yields excellent accuracy for DC and S parameters up to 50 GHz. It proved its usefulness in MMIC oscillator design.

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