Abstracts

A new method in characterizing the nonlinear current model of MESFETs using single-tone excitation

Chun-Wah Fan and K.-K.M. Cheng. "A new method in characterizing the nonlinear current model of MESFETs using single-tone excitation." 2000 MTT-S International Microwave Symposium Digest 00.1 (2000 Vol. I [MWSYM]): 449-452.

This paper presents a novel technique for extracting the two-dimensional Taylor series coefficients of a MESFET. Unknown coefficients are determined from harmonic power measurement using a single-tone excitation. The FET is operated in a quasi-common-gate configuration which allow coefficients to be extracted with enhanced accuracy. For comparison, coefficients obtained by the proposed method and a two-tone approach are given.

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