

Abstracts

Modeling MESFET's for Intermodulation Analysis of Mixers and Amplifiers (Dec. 1990 [T-MTT])

S.A. Maas and D. Neilson. "Modeling MESFET's for Intermodulation Analysis of Mixers and Amplifiers (Dec. 1990 [T-MTT])." 1990 Transactions on Microwave Theory and Techniques 38.12 (Dec. 1990 [T-MTT] (1990 Symposium Issue)): 1964-1971.

This paper examines the problem of modeling GaAs MESFET's for calculations of intermodulation and spurious responses. We show that an adequate model must express not only the absolute I/V characteristics of the device, but also the derivatives of those characteristics. Finally we propose a large-signal FET model that models those derivatives more realistically than do existing models.

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