

Abstracts

Power Characterisation of a MESFET Amplifier Using Small Signal Measurements and Volterra Series

G. Lambrianou and C.S. Aitchison. "Power Characterisation of a MESFET Amplifier Using Small Signal Measurements and Volterra Series." 1985 MTT-S International Microwave Symposium Digest 85.1 (1985 [MWSYM]): 409-413.

The power performance of a microwave GaAs MESFET amplifier is predicted from small signal measurements based on the Volterra Series representation. Expressions for the non-linear power gain frequency response, the output power and gain compression factor are presented. The major sources of gain compression are identified. Experimental verification of the theory is presented by means of a 1.3 μ m gate MESFET amplifier at 7.8GHz.

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