

Abstracts

Prediction of Wideband Power Performance of MESFET Devices Using the Volterra Series Representation

C.L. Law and C.S. Aitchison. "Prediction of Wideband Power Performance of MESFET Devices Using the Volterra Series Representation." 1986 MTT-S International Microwave Symposium Digest 86.1 (1986 [MWSYM]): 487-489.

Power performance of a medium power GaAs MESFET is predicted over the frequency range from 2GHz to 16GHz using a non-linear model where the non-linearities represented by power series up to the third order are derived from D.C. and low-frequency measurements. The analysis employs the Volterra series representation up to the third order. Experimental verification is made on a NE9000 medium power MESFET device. The agreement between predicted and measured output power at one dB. gain compression is within ± 0.5 dB across the 2-16GHz band.

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