Abstracts

Direct observation of loadlines in MESFET by using average RF gate and drain currents

C.C. Meng, C.H. Chang, J.F. Kuan and G.W. Huang. "Direct observation of loadlines in MESFET by using average RF gate and drain currents." 2002 MTT-S International Microwave Symposium Digest 02.3 (2002 Vol. III [MWSYM]): 2161-2164 vol.3.

A device at a given bias point can experience different gain compression mechanisms for different loadline impedances. The observation of loadline impedance for power MESFETs using experimental average RF gate and drain currents at 1dB gain compression point is demonstrated in this paper. We found that there is a distinct signature in average RF gate and drain currents to characterize each gain compression mechanism. By using this novel method, circuit optimization of power amplifiers can be easily achieved.

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