

Abstracts

Simple model for dynamic range estimate of GaAs amplifiers

Z.M. Nosal. "Simple model for dynamic range estimate of GaAs amplifiers." 2001 MTT-S International Microwave Symposium Digest 01.3 (2001 Vol. III [MWSYM]): 1963-1966 vol.3.

The method to estimate the dynamic range of low bias power low noise GaAs amplifiers for portable radio communication equipment is presented. The method uses the extension of a simple linear noise model of the microwave FET, major components of which are bias dependent. Both noise figure and intermodulation distortion of an amplifier may be predicted with this model and the dynamic range is easily calculated as a function of bias current and transistor width. The model unifies small signal and nonlinear properties in a form suitable for manual computation.

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