Abstracts

Intermodulation Distortion Behavior of GaAs Power FETs

E.W. Strid and T.C. Duder. "Intermodulation Distortion Behavior of GaAs Power FETs." 1978 MTT-S International Microwave Symposium Digest 78.1 (1978 [MWSYM]): 135-137.

The 4 GHz intermodulation distortion (IMD) behavior of several Power GaAs FETs from different manufacturers is studied. The two-tone IMD and AM to PM conversion is a function of the source and load impedances. The IMD is not "well-behaved" in general (3:1 IMD slope), and therefore the third-order intercept point is not valid in characterizing these power FET's. This data was applied in the design of a 2 watt 3.7-4.2 GHz linear amplifier. Its linearity performance is compared to that of a 2 GHz linear bipolar amplifier.

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