Abstracts

An Investigation of IM3 Distortion in Relation to Bypass Capacitor of GaAs MMIC's

H. Kawasaki, T. Ohgihara and Y. Murakami. "An Investigation of IM3 Distortion in Relation to Bypass Capacitor of GaAs MMIC's." 1996 Microwave and Millimeter-Wave Monolithic Circuits Symposium Digest 98. (1996 [MCS]): 119-122.

IM3 distortion in relation to a bypass capacitor of a GaAs MMIC has been investigated. Through non-linear simulation and the measurement of a 1-stage MMIC amplifier, it was shown that only IM3 performance depended on the bypass capacitor. A new analytical model of IF amplitude modulation for the 2-tone RF carrier outputs is proposed. Based upon this model, the RF carrier outputs were distorted from the amplitude modulation by IF of the 2-tone carriers when the output matching circuit was of high impedance at the IF.

❑ Return to main document.