

Abstracts

Analysis and Design of GaAs MESFET Mixers

S.A. Maas. "Analysis and Design of GaAs MESFET Mixers." 1984 MTT-S International Microwave Symposium Digest 84.1 (1984 [MWSYM]): 432-433.

A generalized approach to the analysis of GaAs MESFET mixers has been developed, which accurately calculates the input and output impedances and stability conditions, and is applicable to upconverters and harmonic mixers. Two mixer designs are presented along with experimental results yielding conversion gains of 6 and 11 dB, noise figures of 4.5 and 5.5 dB, and third-order intermodulation intercepts of 12 and 15 dBm, respectively. These are state-of-the-art results for single gate FET mixers.

[Return to main document.](#)