

Abstracts

Dual-Gate MESFET Mixers

C. Tsironis, R. Meierer and R. Stahlmann. "Dual-Gate MESFET Mixers." 1984 Transactions on Microwave Theory and Techniques 32.3 (Mar. 1984 [T-MTT] (Special Issue on Power and Low-Noise GaAs FET Circuits and Applications)): 248-255.

A theoretical and experimental investigation of dual-gate MESFET mixers is presented. Based on a detailed analysis of the different nonlinear modes of DGFET's, a computer-aided modeling procedure has been developed, which allowed to recognize and optimize critical circuit and bias conditions for high conversion gain and IF bandwidth. Theoretical results are in good agreement with experiments on a 12-GHz TV reception mixer with 8-dB conversion gain and 800-MHz bandwidth.

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