Abstracts

Zero Bias GaInAs MISFET Mixers

K.W. Chang, B.R. Epstein, E.J. Denlinger and P.D. Gardner. "Zero Bias GaInAs MISFET Mixers." 1989 MTT-S International Microwave Symposium Digest 89.3 (1989 Vol. III [MWSYM]): 1027-1030.

This paper reports the experimental results of a passive, switch-type single-ended mixer using a metal-insulator-semiconductor field effect transistor (MISFET) that was fabricated from Ga/sub 0.47In/sub 0.53/As (GaInAs). The device operated without any applied DC drain or gate bias. A third order input intercept point as high as +30 dBm was obtained with +20 dBm LO input power. Also presented are harmonic balance simulations of the mixer circuit.

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