Abstracts

A low power GaAs front-end IC with current-reuse configuration using 0.15 /spl mu/m gate MODFETs

H. Ishida, H. Koizumi, K. Miyatsuji, H. Takenaka, T. Tanaka and D. Ueda. "A low power GaAs front-end IC with current-reuse configuration using 0.15 /spl mu/m gate MODFETs." 1997 MTT-S International Microwave Symposium Digest 2. (1997 Vol. II [MWSYM]): 669-672.

We have developed a novel current-reuse configuration of front-end IC, where the current can be reused in the whole circuit blocks such as low noise amplifier, local amplifier and mixer. The power dissipation is reduced by the factor of three. Excellent high frequency performance such as conversion gain of 30 dB and NF of 1.6 dB at 1.5 GHz is attained under the conditions of supply voltage and current of 3.6 V and 3 mA, respectively.

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