Abstracts

A low noise 2-20 GHz feedback MMIC-amplifier

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A low noise feedback MMIC-amplifier based on a 180 GHz f/sub max/ PHEMT-technology is described. The gain, input and output reflection coefficient, DC-power consumption, and noise parameters are investigated theoretically and experimentally as a function of DC-bias and frequency. The noise figure is typically 2.5 dB with an associate gain of 22 dB across the 2-20 GHz frequency range. The circuit area is less than 1 /spl mu/m/sup 2/ and the DC-power consumption is lower than 100 mW.

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