

Abstracts

A high gain, low power MMIC LNA for Ka-band using InP HEMTs

C. Pobanz, M. Matloubian, L. Nguyen, M. Case, Ming Hu, M. Lui, C. Hooper and P. Janke. "A high gain, low power MMIC LNA for Ka-band using InP HEMTs." 1999 Radio Frequency Integrated Circuits (RFIC) Symposium 99. (1999 [RFIC]): 149-152.

Compact Ka-Band MMIC low noise amplifiers have been developed with high gain, low VSWR and low power dissipation using 0.12 /spl mu/m InP HEMT technology. A five stage single-ended LNA achieved 40 dB of gain and a 1.4 dB average noise figure over the 27-30 GHz band with an input return loss in excess of 15 dB. The $3/\text{spl times/1 mm}^2/$ MMIC consumes less than 40 milliwatts of dc power.

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