Abstracts

A highly-integrated low-power direct conversion receiver MMIC for broadband wireless applications

B. Matinpour, S. Yoo and J. Laskar. "A highly-integrated low-power direct conversion receiver MMIC for broadband wireless applications." 2001 MTT-S International Microwave Symposium Digest 01.2 (2001 Vol. II [MWSYM]): 1089-1091 vol.2.

In this paper, we present a highly integrated low-power direct conversion receiver MMIC for broadband wireless applications at C-band. This receiver chip is fabricated in a 0.6 /spl mu/m commercial GaAs MESFET process and operates on only 90 mW of dc power consumption. Using an integrated switched LNA and direct-coupled baseband amplifiers, this receiver demonstrates a conversion gain of 25 dB, NF of 6.7 dB, dc offset below -70 dBm, IIP2 of +20 dBm, and IIP3 of -15 dBm in the high-gain mode and +15 dBm in the low-gain mode at 5.8 GHz.

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