Abstracts

A low-power direct conversion receiver module for C-band wireless applications (2001 [RFIC])

B. Matinpour, A. Sutono and J. Laskar. "A low-power direct conversion receiver module for C-band wireless applications (2001 [RFIC])." 2001 Radio Frequency Integrated Circuits (RFIC) Symposium 01. (2001 [RFIC]): 263-266.

In this paper, we present the first low-power direct conversion receiver module for broadband wireless applications at C-band. This module is composed of a highly-integrated receiver MMIC fabricated in a 0.6 /spl mu/m commercial GaAs MESFET process mounted on a LTCC substrate with an integrated multi-layer three-dimensional front-end filter. With only 25 mW of dc power consumption, this receiver module demonstrates a conversion gain of 9 dB, NF of 4.7 dB, dc offset below -70 dBm, IIP2 of +30 dBm, and IIP3 of -10 dBm at 5.8 GHz.

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