Abstracts

A compact direct conversion receiver for C-band wireless applications

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In this paper, we present a fully monolithic and compact direct conversion receiver for C-band wireless applications. The receiver occupies a 53/spl times/35 mil/sup 2/ die area and dissipates 60 mW of DC power. Utilizing even-harmonic mixing, we demonstrate excellent intermodulation suppression with both 2/sup nd/ and 3/sup rd/ order intercept points of 14 dBm. This design provides a voltage conversion gain of 6 dB while keeping the DC offsets below -100 dBm for excellent input sensitivity The chip was fabricated with the TriQuint TQTRx GaAs MESFET process.

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