Abstracts

Integrated CMOS transceivers using single-conversion standard IF or low IF RX for digital narrowband cordless systems

A. Jerng, A. Truong, D. Wolday, E. Unruh, E. Landi, L. Wong, R. Fried and S. Gibbons. "Integrated CMOS transceivers using single-conversion standard IF or low IF RX for digital narrowband cordless systems." 2002 Radio Frequency Integrated Circuits (RFIC) Symposium 02. (2002 [RFIC]): 111-114.

This paper describes a 0.25 /spl mu/m CMOS transceiver operating in the 902-928 MHz ISM band for US Narrowband Digital Cordless Telephony. The DS9RF31 transceiver, intended for TDD systems, meets all specifications while providing a low cost, small the size solution. The transmitter uses open-loop FSK modulation and the receiver uses a single-conversion image-reject architecture followed by an IF chain and demodulator that provides output data to a baseband IC for further processing. One version of the chip uses a standard 10.7 MHz IF with discrete channel filters. A second version (DS9RF32) integrates the IF channel filter by using a low-IF of 1.36 MHz.

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