Abstracts

An RF front-end for the direct conversion WCDMA receiver

J. Ryynanen, A. Parssinen, J. Jussila and K. Halonen. "An RF front-end for the direct conversion WCDMA receiver." 1999 Radio Frequency Integrated Circuits (RFIC) Symposium 99. (1999 [RFIC]): 21-24.

A direct conversion RF front-end receiver chip, which can be used in the 3rd generation mobile communications, is introduced. The RF chip consists of a LNA, quadrature mixers and a 90/spl deg/ LO phase shift network. It uses a 25 GHz f/sub t/ BiCMOS process with a 0.35 /spl mu/m MOS gate length. The front-end has a 27.5 dB voltage gain, 4 dB NF (DSB), -9 dBm IIP3 and +43 dBm IIP2. It draws 41 mA from a 2.7 V supply.

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