Abstracts

Analog baseband IC for use in direct conversion W-CDMA receivers

M. Goldfarb, W. Palmer, T. Murphy, R. Clarke, B. Gilbert, K. Itoh, T. Katsura, R. Hayashi and H. Nagano. "Analog baseband IC for use in direct conversion W-CDMA receivers." 2000 Radio Frequency Integrated Circuits (RFIC) Symposium 00. (2000 [RFIC]): 79-82.

A 0.6 /spl mu/m BiCMOS analog baseband IC that enables a direct conversion W-CDMA receiver is described. Two diversity I/Q channels provide 87 dB of voltage gain, controllable in 1-dB steps. A 2 MHz low pass filter, synchronized to an external RC network, provides an accurate rejection mechanism against adjacent channel interference. A log amp provides a "Fast-RSSI" function for rapidly selecting gain settings. Low DC current (<5 mA/path), low input noise (<4 nV/Hz/sup 1/2/), and a high P3dB (-20 dBVrms) are achieved.

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