Abstracts

A high dynamic range, digitally tuned, Q-enhanced LC bandpass filter for cellular/PCS receivers (1998 [RFIC])

W.B. Kuhn, N.K. Yanduru and A.S. Wyszynski. "A high dynamic range, digitally tuned, Q-enhanced LC bandpass filter for cellular/PCS receivers (1998 [RFIC])." 1998 Radio Frequency Integrated Circuits (RFIC) Symposium 98. (1998 [RFIC]): 261-264.

A fully-integrated, 850 MHz, 2-pole, bandpass filter with a 2 percent fractional bandwidth is reported. The filter provides digital control of center frequency and Q, and includes a companion on-chip oscillator suitable for master-slave tuning. Prototype measurements show a dynamic range of 75 dB when used in a system with a 1 MHz final IF bandwidth, and an oscillator phase noise of -105 dBc/Hz at 100 kHz offset.

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