Abstracts

Q-enhanced LC bandpass filters for integrated wireless applications

W.B. Kuhn, N.K. Yanduru and A.S. Wyszynski. "Q-enhanced LC bandpass filters for integrated wireless applications." 1998 Transactions on Microwave Theory and Techniques 46.12 (Dec. 1998, Part II [T-MTT] (1998 Symposium Issue)): 2577-2586.

Q-enhanced LC filter technology offers an alternative to the use of direct conversion techniques for implementing fully integrated receivers. Design and performance issues for QE LC filters are discussed and a fully integrated 850 MHz, two-pole, bandpass filter with an 18 MHz 3 dB bandwidth is reported. The prototype design is implemented in a standard 0.8 /spl mu/m CMOS process and achieves a rejection of over 50 dB at 100 MHz offset, an in-band dynamic range of 75 (90) dB when used in a system with a 1 MHz (30 kHz) final IF bandwidth, and a third-order intercept point that exceeds +25 dBm at an 80 MHz offset from the passband center,.

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