Abstracts

A monolithic 2-V 950-MHz CMOS bandpass amplifier with a notch filter for wireless receivers

Chunbing Guo, A.N.L. Chan and H.C. Luong. "A monolithic 2-V 950-MHz CMOS bandpass amplifier with a notch filter for wireless receivers." 2001 Radio Frequency Integrated Circuits (RFIC) Symposium 01. (2001 [RFIC]): 79-82.

A fully-integrated 950-MHz bandpass amplifier for use in a wireless receiver is designed in a standard 0.5-/spl mu/m CMOS process. A Q-compensation circuit is embedded to achieve a desired bandwidth of 25 MHz. Unbalanced g/sub m/-cells are used to maximize the linearity. A notch filter is adopted to achieve an image rejection of 50 dB. A switchable-capacitor array is used to tune the center frequency over 100 MHz range. The amplifier measures a gain of 22 dB with an IIP3 of -17 dBm, a noise figure of 10 dB and draws a current of 25 mA from a 2-V supply.

❑ Return to main document.