عنوان مقاله:
A Low Voltage Full-band Folded Cascoded UWB LNA with Feedback Topology

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خلاصه مقاله:
In this paper, a low voltage ultra wide band (UWB) low noise amplifier (LNA) is designed in a standard0.18?m CMOS technology. In order to possibly minimize the amount of supply voltage, the forward bodybias technique is combined with the folded cascode structure and for extending and flatting the bandwidth, the feedback topology is used. With an optimized configuration combining advantages of feedbacktopology and forward body bias, folded cascode topology, the adjustable wide input matching is got andnoise figure (NF) is controlled to a relevant low status. This novel structure achieves peak gain of 12dBand noise figure varying from 4.6-2dB within the band of 3-15GHz. The LNA uses supply of 0.8V whileconsuming only 12.5mW of dc power. To the best of our knowledge, this structure for low .voltage UWBLNA has not been reported previously

کلمات کلیدی:
Low Noise Amplifier (LNA)Feed Back topologyUltra Wide Band (UWB)CMOSForward Body Bias