

عنوان مقاله:

Low power, Low noise ,Ultra Wideband Low Noise Amplifier

محل انتشار:

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تعداد صفحات اصل مقاله: 4

نویسندگان:

Behnam Dorostkar - *Sabzevar Tarbiat Moallem University*

Javad Haddadnia - *Sabzevar Tarbiat Moallem University*

Majid Baghaei-Nejad - *Sabzevar Tarbiat Moallem University*

Khalil Mafinezhad - *ferdowsi univercity of mashad*

خلاصه مقاله:

in this paper we study ultra wide band low noise amplifier (UWB LNA) in 3-10 GHz frequency band with common source topology, in 0.18 μm CMOS technology By a proper chosen of the range of element the amount of the noise has been minimum and By using Cascade structure the gain and bandwidth has been increased. Simulation result in ADS (Advanced Design System) shows the minimum of gain () is 13 dB and variation of noise figure (NF) is between 1.1 ~ 1.65 dB in desired operation frequency. Input return loss () is better than -11.5 dB that is desirable. To reduce the power dissipation the circuit operates at 1 volt and total power consumption is 4.97 mw. The final design show that .the Figure of Merit (FOM) is 80.48

کلمات کلیدی:

low noise amplifier, ultra wideband, gain, noise figure, input impedance matching

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