

## عنوان مقاله:

An UWB LNA With Butterworth Filter in 0.18 $\mu$ m CMOS technology

## محل انتشار:

دوازدهمین کنفرانس دانشجویی مهندسی برق ایران (سال: 1388)

تعداد صفحات اصل مقاله: 5

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## خلاصه مقاله:

in this paper, a 3GHz-10GHz Ultra wideband (UWB) Low Noise Amplifier (LNA) typology is proposed. The broadband matching and the flat gain are two important factors for the broadband circuits. Besides those factors, the minimal Noise Figure (NF), good linearity, and the lower power consumption are also desired. The common gate input stage configuration is used in the proposed LNA to achieve the broadband input matching. The flat gain of the LNA is achieved by the combination of the inductor peaking load and the shunt inductor insertion between the cascade stages of LNA. The LNA is designed in the standard 0.18 $\mu$ m CMOS technology. The input reflection coefficient S11 and output reflection coefficient S22 are less than -8dB and -10dB. It achieved maximum power gain 14.8dB and the minimum noise figure is 3.6dB and S12 less of -42dB . It consumes 14.8mW from a 1.8-V supply voltage

## کلمات کلیدی:

(Common-gate configuration, noise figure (NF), ultra-wide-band (UWB) CMOS low- noise amplifier (LNA

## لینک ثابت مقاله در پایگاه سیویلیکا:

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