

Abstract

In this paper, two-stage low noise amplifier (LNA) using active bias networks operating around 24 GHz for front-end receiver system is presented. The designed and optimized LNA by means of ADS software achieves an excellent noise figure of 1.78 dB, a power gain of 15.37 dB with respectively 17.34 dB and 22.33 dB input and output return losses. In order to validate the designed two-stage LNA, the obtained simulation results have been compared with the measurements reported in the literature. The Experimental results agree well with the simulation one