

The state-of-the-art noise figures of 2.17 dB and 3.0 dB at 5 GHz band from monolithic CMOS LNA's with 10 mW dissipation on thin ($\sim 20 \mu\text{m}$) and normal ($750\mu\text{m}$) substrates are presented. Excellent Input return loss (S_{11}) of -45 dB, high $P_{1\text{dB}}$ of -8.3 dBm and large IIP3 of 0.3 dBm were also obtained. The excellent performance of the LNA's is attributed to the methodology we developed.