

Circuit Simulation Project

<https://esim.fossee.in/circuit-simulation-project>

Name of the participant : Pavithra B S

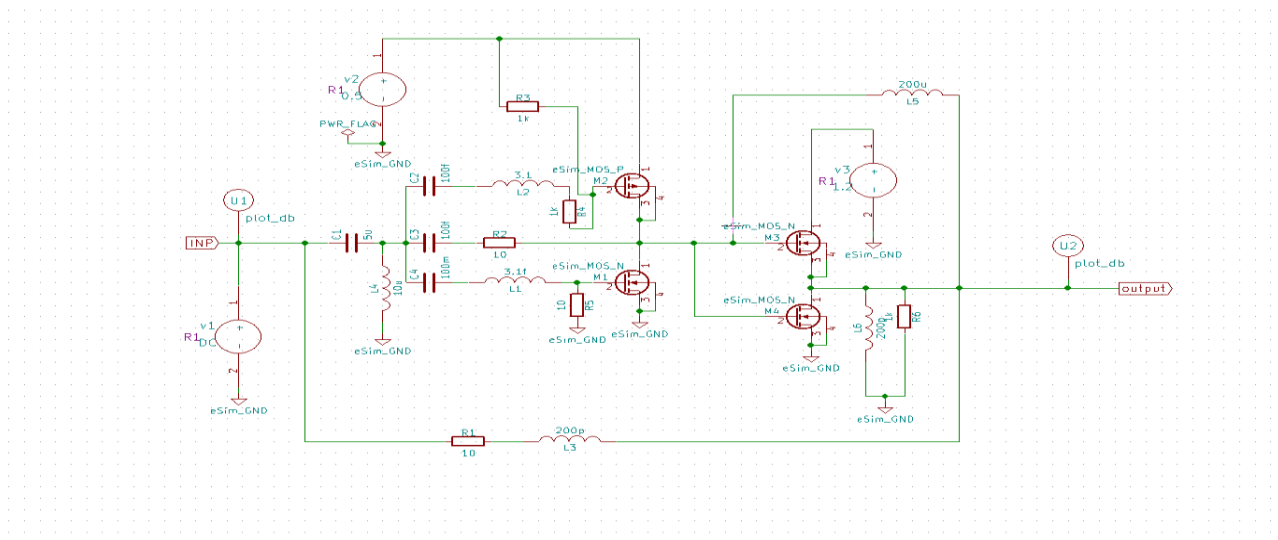
Title of the circuit :

AN ULTRA LOW VOLTAGE, WIDEBAND LOW NOISE AMPLIFIER DESIGN TECHNIQUE

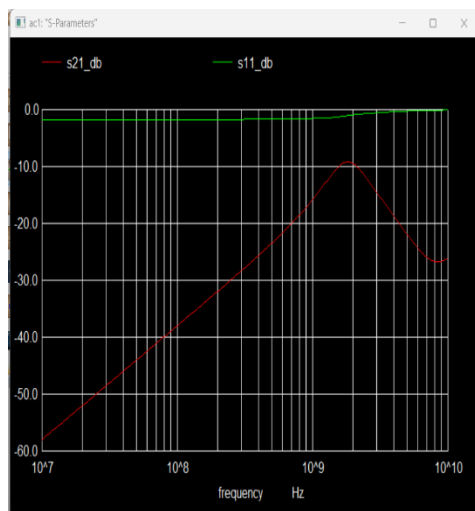
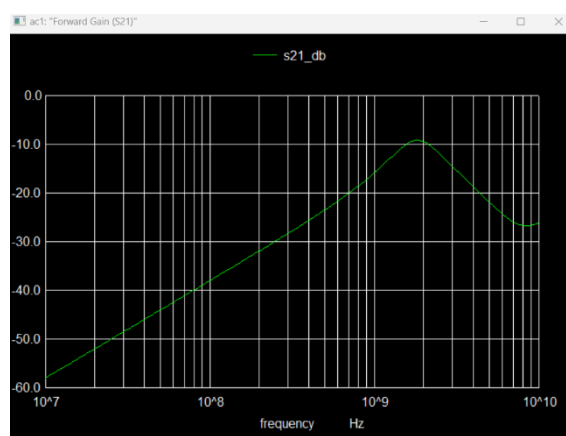
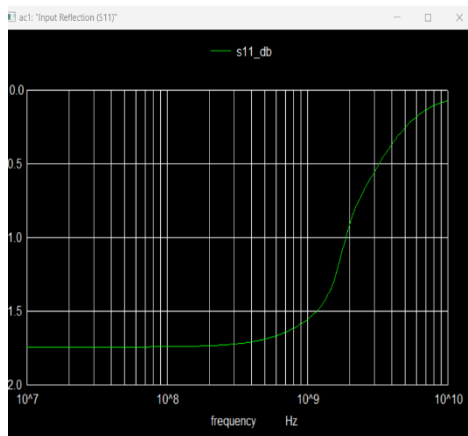
Theory/Description :

Low noise amplifier (LNA) is a vital segment of RF receiver and frequently required to operate at wide frequency bands for various wireless system applications. For wideband operation, critical execution measurements, for example, power dissipation, s-parameter, noise figure and linearity have been carefully researched and described for the proposed LNA. This work introduces a low noise amplifier (LNA) utilizing current reuse system for wideband receiver. The current reuse strategy is routed to optimize noise performance and power efficiency while keeping up a decent power gain and input/output matching. An inductive peaking configuration is effectively utilized in the proposed LNA which incorporates cascaded networks with a peaking inductor in the buffer stage. Inductive peaking in the feedback loop is utilized to improve the bandwidth and noise performance of LNA.

Circuit Diagram(s) :



Results/Output waveforms:



Source/Reference(s) : Aparna Singh Kushwah,SafaltaKatare,"An Ultra Low voltage, wideband low noise amplifier technique"