

Design and analysis of folded cascode operational amplifier using 0.13 μm CMOS technology

Abstract

In this paper, a folded cascode operational amplifier is designed and analysed by using 0.13 μm CMOS technology. Several analyses such as DC analysis and AC analysis are carried out to analyse the performances of the proposed folded cascode op-amp. Through the simulation of Mentor Graphics, under 3.3 V power supply, the circuit's DC gain is 32.3590 dB, the phase margin is 83.754 degree with high stability, the bandwidth is larger than 10 MHz, the unity gain bandwidth is as high as 906.8953 MHz and the power dissipation is 86.9774 mW.