

عنوان مقاله:

Design of a 4.2 GHz UGBW, 52 db DC Gain Op-amp with No-Capacitor Feed-Forward (NCFF) Compensation and Negative Impedance Techniques

محل انتشار:

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خلاصه مقاله:

in this paper, a high speed differential two stage operational amplifier has been implemented using a no-capacitor feed-forward (NCFF) compensation and negative resistance techniques in a standard 0.18 μm CMOS technology. The two stage based op-amp with NCFF compensation achieves 4.2 GHz of unity gain bandwidth for a nominal power consumption 7.7mW and exhibits 52 dB of DC gain with phase margin of 53° when driving a differential load of (2x500 .fF) at a 1.8V power supply voltage. The proposed op-amp achieves a figure of merit (FOM) of 982 at 1.8 V

کلمات کلیدی:

Operational Amplifire; FOM; NCFF; NIGE

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