عنوان مقاله:

A New Low-Voltage Rail-to-Rail CMOS Input-Stage Using Composite Cells

محل انتشار:

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خلاصه مقاله:

This paper describes a novel circuit design technique for low-voltage rail-to-rail inputstages based on CMOS composite cells. This inputstage is suitable to be incorporated on the design of any amplifier topology with extended common mode input range. To achieve rail-to-rail input voltage range, two pairs of this cell are connected in parallel. The transconductance of each pairs are inherently tunable by a biasing voltage. The constant- gm characteristic is controlled by applying suitable values to these biasing voltages maintaining the smooth response over the change of input common mode voltage. HSPISE simulations show that the overall transconductance has linearity better than 6 .percent with 2.5V supply voltage

کلمات کلیدی:

Low voltage, Input-stage, Composite cell, rail-to-rail, Constant gm