

A 1.8V, 1MS/s, 85dB SNR 2+2 Mash Sigma-Delta Modulator with $\pm 0.9V$ Reference Voltage

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Abstract

A 1.8V, 1MS/s, 85dB SNR 2+2 mash sigma-delta modulator with $\pm 0.9V$ reference voltage is realized by using the swing reduction structure. This structure limits the output swing of all the integrators within half the reference voltage. Thus, low voltage and high speed operation is possible with even high reference voltage without degrading the performance of the modulator. The circuit is fabricated in CMOS 0.35 μ m process with chip size of 2.5 \times 2.5mm².