

An 8-bit 30MS/s 18mW ADC with 1.8V single power supply

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This paper describes an 8-bit 30MS/s 18mW ADC with 1.8V single power supply for battery powered systems. A folding and interpolation architecture with the auto-zeroed amplifiers is newly developed to achieve the low power consumption and the low power supply voltage. A pipelining technique is introduced to realize that conversion rate with low power consumption. The experimental results shows DNL less than 0.5 LSB, INL less than 1.0 LSB and SNDR more than 45dB with 3MHz input.