Abstract

This work describes a 12-bit pipeline ADC (Analog-to-Digital Converter) for CMOS (Complementary Metal Oxide Semiconductor) that is implemented in a TSMC 0.18μm CMOS process. The proposed ADC utilizes the Threshold Inverter Quantization (TIQ) technique that uses two cascaded CMOS inverters as a comparator. The TIQ flash ADC achieves high speed, small size, low power consumption, and low voltage operation compared to other ADCs. The sample and hold circuit have a high Sampling rate. This Design is implemented and Fabricated in TSMC 0.18μm CMOS verified on the LT SPICE in 0.18μm Technology.

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Index Terms

Computer Science
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Keywords
Pipe line ADC, CMOS transistor