Abstract

Analog-to-digital converters (ADCs) are required in almost all communication and signal processing applications. This paper describes a 1.5-V, 10-bit, 200-Msample/s pipeline analog-to-digital converter in 0.18-µm CMOS technology. The entire circuit architecture is built with a modular approach consisting of identical units organized into an easily expandable pipeline chain. The converter uses ten stage pipelined architecture with fully differential analog circuits, with a full-scale sinusoidal input at 10 MHz. A special focus is made on pipelined ADC for its superior performance in terms of speed and resolution.

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