

4-bit, 10 GSPS Analog to Digital Converter IP block

General Description

The A4B10G is a low-power, high-speed analog to digital converter (ADC) intellectual property (IP) design block. It is a flash-type ADC, with 4-bit resolution and a sampling rate of 10 gigasamples per second (GSPS).

The A4B10G is a unique solution that provides the dual benefit of reaching an extremely high sampling speed while maintaining an exceptionally low power consumption of approximately 62 mW, making it a perfect fit for designs with high efficiency, low power, and high-performance requirements.

The IP block has been designed in a 28nm CMOS process. Please contact the vendor about porting the IP to other processes. The ADC IP is also available in a radiation-tolerant version, that can function under harsh environmental constraints.

Key Features

- ◆ 4 bit resolution
- ◆ 10 GSPS sampling rate
- ◆ 62 mW power
- ◆ 25 GHz Input Bandwidth
- ◆ Dynamic Performance:
 - ◆ SFDR: 27 dBc
 - ◆ ENOB: 3.7
- ◆ Hard IP block
- ◆ STMicroelectronics 28nm process
- ◆ Radiation-tolerant design available: A4B10GRH

Applications

- ◆ High-Speed Test and Measurement Systems
 - ◆ Oscilloscopes, spectrometers & digitizers
- ◆ Communications and Networking
 - ◆ Satellite Subsystems
 - ◆ Wideband RF Receivers
 - ◆ Phased Array Receivers
 - ◆ Optical Communications Receivers
- ◆ Military & Civil Aerospace Applications

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