

# A10B2G-ST28



## 10-bit, 2 GSPS Analog to Digital Converter IP block

### General Description

The A10B2G is a ultra low-power, high-speed analog to digital converter (ADC) intellectual property (IP) design block. It is a successive approximation register (SAR) ADC, with 10-bit resolution and a sampling rate of 2.4 gigasamples per second (GSPS).

The A10B2G 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 6 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

- ◆ 10 bit resolution
- ◆ 2.4 GSPS sampling rate
- ◆ 6 mW power
- ◆ Dynamic Performance:
  - ◆ SFDR: 66 dBc
  - ◆ ENOB: 8.4
- ◆ Hard IP block
- ◆ STMicroelectronics 28nm process
- ◆ Radiation-tolerant design available: A10B2GRH

### 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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