

A8B620M-ST28



8-bit, 620 MSPS

Analog to Digital Converter IP block

General Description

The A8B620M is an ultra-low-power and high-speed analog to digital converter (ADC) intellectual property (IP) design block. It is a successive approximation register (SAR) ADC, with 8-bit resolution and a sampling rate of 620 megasamples per second (MSPS).

The A8B620M delivers performance that is unrivaled in the ultra-low power ADC market, with a power consumption of only 1.6 mW, and input bandwidth of 3 GHz.

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

- ◆ 8 bit resolution
- ◆ 620 MSPS sampling rate
- ◆ 1.6 mW power
- ◆ 3 GHz Input Bandwidth
- ◆ Dynamic Performance:
 - ◆ SFDR: 55 dBc
 - ◆ ENOB: 7.4
- ◆ Hard IP block
- ◆ STMicroelectronics 28nm process
- ◆ Radiation-tolerant design available: A8B620MRH

Applications

- ◆ Automotive Applications
 - ◆ Autonomous Vehicles
 - ◆ LiDAR Systems
- ◆ High-Speed Communications
 - ◆ 5G, LTE, WiFi
- ◆ Industrial and Medical Applications
- ◆ Military and Civil Aerospace

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