



**2030
ADC8
ANALOG TO DIGITAL CONVERTER**



1. FEATURES

- Single slot module
- High speed (up to 5M samples per second) ADC
- Quantization 8 or 12 bits
- DSP based filter provides sharp cutoff transition for improved performance
- Easy to operate module
- Programmable channel ID tag

2. OVERVIEW

The ADC8 module digitizes an analog input at programmable sample rates up to 5 Ms/s. The quantization level is selectable between 8 and 12 bits. The data is sampled and placed into the mux/demux composite data stream along with other input channels. The Demux process uses the companion DAC8 module to reconstruct the analog signal. A user enabled DSP based FIR filter provides enhanced anti-alias filtering (sharper cutoff transition) with constant group delay for operation at the maximum 5 Ms/s to provide a high fidelity analog bandwidth of 2 MHz.

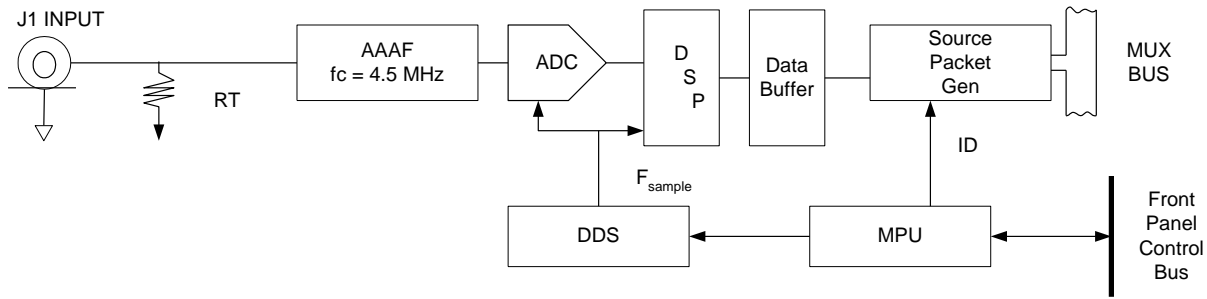


Figure 1 ADC105 Functional Block Diagram

3. SPECIFICATIONS

NUMBER OF CHANNELS

1 Channel on a BNC type connector

INPUT VOLTAGE RANGE:

-2.5 to +2.5 Volts

INPUT IMPEDANCE:

50 / 75 / 1k ohm selectable input impedance

FREQUENCY RESPONSE:

When the FIR filter is enabled, the ADC is set to oversample the input by a factor of 3. The FIR filter is automatically set for 2 MHz passband resulting in the 15 Ms/s being decimated to 5 Ms/s.

DIGITIZER:

Selectable Sampling Rate, 100k samples per second through 5M samples per second in 1ksp/s steps

Digitized to 8 or 12 bits of resolution

CHANNEL ID

TX Mux Channel ID 0x000-0x7FO

COMPATIBILITY

AL4300 Series Module

One Chassis Slot Required

NOTE: This module does NOT support 10 ms SI operation

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