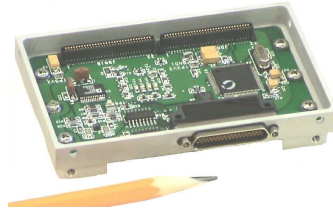


4008
AADC2
4-Channel Analog To Digital Converter



FEATURES

- Single height module size (0.4" x 2.5" x 4.0")
- 4 channels simultaneously sampled
- Signal bandwidth: DC to 50 KHz
- Input signal range selectable per channel
 - 0V to +1V, +2V, +5V, +10V
 - -10V to +10V
 - 0-20mA current input using input terminations
- Input configurations set by channel
 - Single ended and differential
 - 10K Ω , 250 Ω , 500 Ω terminations
- Module sample rates
 - 1ksps, 10ksps, 20ksps, 50ksps, 100ksps
- Digitized module output sample size
 - 8 bits, 10 bits, 12 bits
- Micro D37 pin connector interface

OVERVIEW

The AADC2 module accepts 4 analog signals for inclusion in the multiplexed data output stream of an Apogee Labs AL4000 Multiplexer/Demultiplexer system. Each of the four inputs is independently programmable to accept unique signal levels from analog sources producing signals from DC to approximately 50 KHz. Each analog input channel is individually terminated and set to accept its unique signal type and voltage range. The module uses a packetized data transport format and requires programming the sample size and rate while the AL4000 packetizer transports the results automatically.

The 4008 AADC2 is used in conjunction with the Apogee Labs' 2105 DAC2 module.

SPECIFICATIONS

GENERAL

- Single height module, 0.40" x 2.5" x 4.0" (4 Cubic Inches)
- Weight: 2.5 oz (71 grams)
- Power consumption: 4 W
- Program selectable module sampling rates (1ksps, 10ksps, 20ksps, 50ksps, 100ksps)
- No sampling plan or format setup
- Noise \leq 4LSB counts
- Compatible with 1ms and 10ms sample intervals
- Programmable module identifier
- Programmable sample size (8, 10 and 12 bits)
- Micro D-37 pin connector

COMPLEMENTARY HARDWARE

- 2105 DAC2

ANALOG INPUT

- 4 inputs simultaneously sampled
- Terminations for each channel (10K Ω , 250 Ω)
- Terminator power dissipation (250 Ω - 150mw instantaneous; 100mw avg continuous / 10K Ω - 100mw instantaneous; 60mw avg continuous)
- Differential or single ended input
- Input voltage range programmable per channel (0V to +1V, +2V, +5V, +10V); (-10V to +10V); 20ma current mode using input terminations
- Over voltage protection to +/- 40V
- Input common mode voltage range (+/- 5V for 0-1V, 0-2V, 0-5V, 0-10V; +/- 10V for 0-10V +/- 10V)
- Input impedance (>1M Ω for 0-1V, 0-2V, 0-5V; 43.3K Ω for 0-10V +/- 10V)