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ALPHI TECHNOLOGY CORPORATION

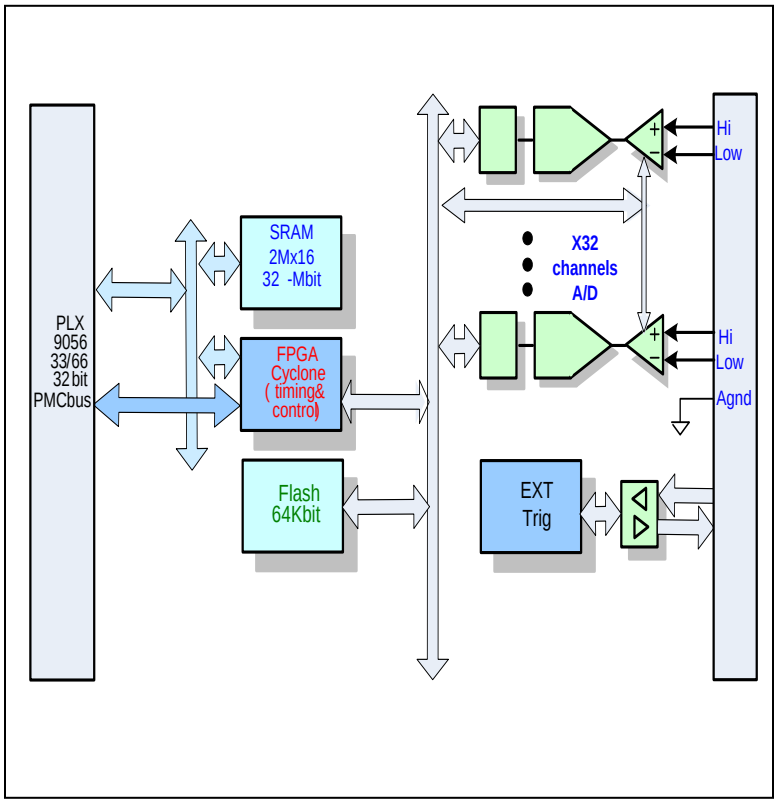
PMC-32AD16-200

PMC 32 Channels A/D 16 Bits 200KHZ BOARD

PMC Module

Features

- 32 Channels 16-bit A/D converter Simultaneously Sampled
- Fast throughput rate: up to 200 KSPS for all 32 channels
- 32 Channels true Differentials
- Instrumentation Amplifier per channel
- Software programmable gain: 1, 2, 4, 8
- True bipolar analog input ranges: +/- 1.25 volt,+/- 2.5 volt,+/- 5 +/- 10 volt
- Programmable 2nd Order Anti-alias Analog Filter
- Over-sampling capability with digital filter
- 32 Mbits :2MX16 SRAM
- DMA capabilities
- IEEE1386 and Vita 32 Compliant



Block Diagram and Operational Overview

The PMC-32AD16-200 Simultaneously sampled A/D offers a mix of up to 32 differential analog input channels.
All channel features programmable gain 1,2,4,8 and can program to handle analog input with a single-ended or differential configuration.
The acquisition can be started by the host or by an on-board sequencer that uses a channel list to specify which channel to acquire.
A local 2M8Kx16 but dual ported SRAM stores the acquisition data.
Memory pointers can be selected to limit the number of scans gathered, as well as the control of interrupt generation.
The 16-bit A/D converters can provide a global acquisition and conversion time of ≤5µsec per sample per channel.
The board offers a programmable digital filter: ±5 V range, the −3 dB frequency is typically 15 kHz.
In the ±10 V range, the −3 dB frequency is typically 23 kHz.

Advailable Drivers:

- Labview
- Linux
- Window XP
- VxWorks drivers

Applications:

This is a perfect solution for a wide array of advanced real-time control applications such as:

- digital servo controls
- military SONAR-RADAR
- adaptive control
- vibration control systems
- other high-speed acquisition & controls system

8xx-10-000-4100

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ADC Specifications:

16-bit, charge redistribution SAR, A/D converter
Hardware factory-calibrated and tested to ensure SNR and THD are within specifications
Gain, offset, and linearity are also factory-calibrated
Throughput 200 KSPS per Channel

- INL: ±0.5 LSB Max with no missing code
- 95.5 dB SNR, −107 dB THD
- Analog input voltage ranges
- Bipolar: ±1.25 V ±2.5 V ±5 V ±10 V
- No pipeline delay

Instrumentation amplifier specifications:

- Differential input support
- ± 10VDC input range
- Software programmable gain of 1, 2, 4, 8
- Over-voltage protection to ± 40 VDC
- Differential Input with 2 Wire Interface (Hi,Low)

Multi-Board Synchronization:

Multiple board synchronization via software control for clocks and triggers.
External trigger / Internal trigger

PMC Bus:

PMC Bus Interface 3.3 / 5 Volt
PLX 9056 33/66MHz 32-bit, PCI r2.2 compliant
3.3V I/O, 5V tolerant bus interfaces

I/O panel connectors:

Front Panel 68 pin SCSI Connector

Operating Environment:

- Operating temperature
  Commercial: 0 to +70 ºC
  Optional: -40 ºC to +85 ºC
- Non-operating: -45 ºC to +100 ºC
- Airflow requirement – 5 CFM
- Humidity – 5 to 90% (non-cond)
- Altitude – 0 to 10,000 feet

Mechanical Environment:

- Size – Single Wide PMC module
  74mm x 149mm
- Power – 1.5 watt
- Vibration – 0.5G, 20-2000 Hz rand
- Shock – 20G, 11 msec, ½ sine
- Weight – 3 ounces
- MTBF – >250,000 hours

Ordering Information

Commercial Temp: 0 ºC to +70 ºC		
Part number:	PMC-16AD16-200	16 Channels 16 Bits, 200KSP
	PMC-32AD16-200	32 Channels 16 Bits, 200KSP
Ext Temp: -40 ºC to +85 ºC		
	PMC-16AD16-200-I	16 Channels 16 Bits, 200KSP
	PMC-32AD16-200-I	32 Channels 16 Bits, 200KSP

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