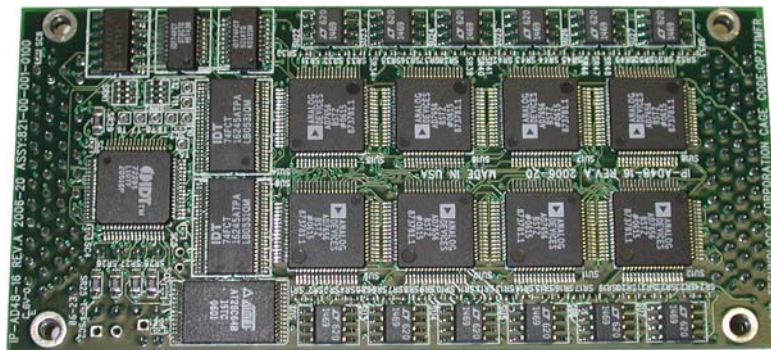


## Summary

The AD7656 contains six 16-bit, fast, low power, successive approximation ADCs all in the one package. The part AD7656 core operates from a single 4.5 V to 5.5 V power supply and features throughput rates up to 250 kSPS. The part contains low noise, wide bandwidth track-and-hold amplifiers that can handle input frequencies up to 8 MHz. The AD7656 can accommodate true bipolar input signals in the range  $\pm 10V$ . The AD7656 contains a 2.5V internal reference.



## 48 Channel Simultaneous ADC Industry Pack 16 bit 250 KSPS per channel



IP-48AD

### Features

- 48 16-Bit ADCs channels
- 48 True Bipolar Analog Inputs
- Pin/Software Selectable Ranges:-  $\pm 10V$ ,  $\pm 5V$
- Fast throughput rate: up to 250 kSPS per channel simultaneously
- Input buffer per channel
- Internal / External triggers
- Wide input bandwidth: 86 dB SNR at 50 kHz input frequency
- On-chip Reference and Reference Buffers
- Fifo or direct data transfer
- DMA capable
- Programmable Interrupt
- Standby Mode:  $-5 \mu A$  max

### Applications

- Process Control and Industrial Automation
- Precision Instrumentation
- Direct Digital Waveform Generation
- Automatic Test Equipment

### Programmable via

- IP Bus

### IP interface

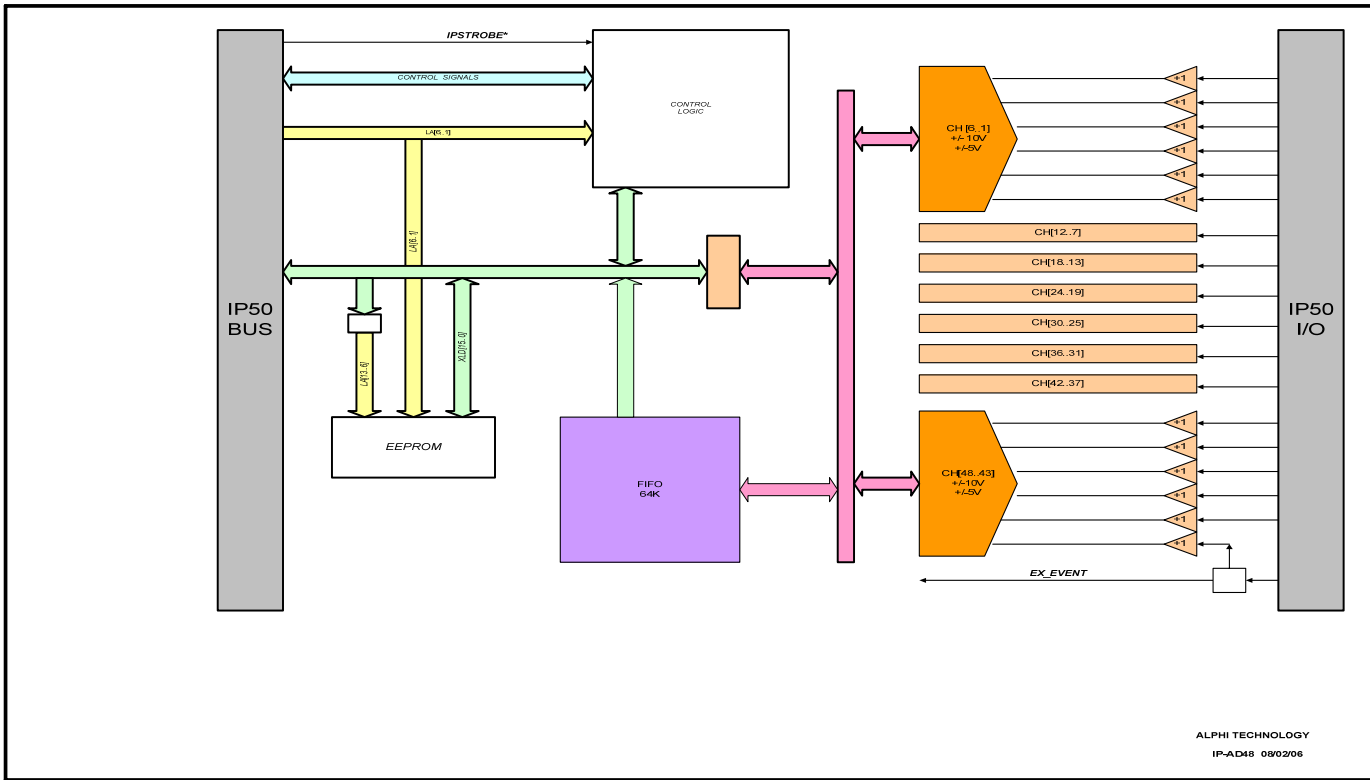
- 8/32 Mhz clock
- 16 bit data

### Operating: Environmental

- Operating temperature  
 Commercial: 0 to  $+55^{\circ}C$   
 Optional:  $-25^{\circ}C$  to  $+80^{\circ}C$
- Non-operating:  $-40^{\circ}C$  to  $85^{\circ}C$
- Airflow requirement: .5 CFM
- Humidity: 5 to 90% (non-cond.)
- Altitude: 0 to 10'000 ft

### Mechanical: Environmental

- Size: Vita 4 Type 1 IP  
 1.8" x 3.9"
- Power: tbd
- Vibration: 0.5G RMS  
 20-2000 Hz rand
- Shock: 20 G, 11 ms,  $\frac{1}{2}$  sine
- Weight: tbd
- MTBF: >110000 hours



Functional Block Diagram

### ORDERING INFORMATION

Part Number: IP-48AD 48 channel 16 bit A/D Industry Pack Module  
 IP-48AD-I Same as above with -40 to +85 C

### Optional Accessories

Part Number : TB-50-HDR 50 pin terminal block and 1meter flat ribbon cable  
 CBL-50-HDR 50 pin, 1meter flat ribbon cable, IDC header connector

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