

Summary

IP-48DAC is a single size IP board with a total of 48 voltage output D/A.

Each output is followed by a buffer able to provide +/-10 mA.

When using gain and offset correction register, the digital to analog converters are accurate to 1 LSB over the industrial temperature range (4 LSB without correction).

Special function code allow global update of all channel or by group of eight channels.

Standard ping-pong output register for each channel or optional data RAM allows waveform generation with minimum processor involvement.



48-channel 16-bit DAC with Gain and Offset Correction, Output Buffer, Waveform Data SRAM



IP-48DAC-16

Features

- Three 16-Channel D/A converters
- 20 μ S typical settling time
- Bipolar voltage outputs :+/-10V
- System Calibration allowing user-programmable offset and gain correction
- +/- 4 LSB without correction
- 1 LSB with correction over the Industrial Temperature Range
- Glitch Impulse < 20nV-s typ.
- Power-On Reset to 0V
- Global or individual output buffer update
- Buffered driver output : +/-10ma
- Flash EEPROM for correction data
- Optional 64kwords data RAM
- Two stage buffers
- Ping-pong output register for easy waveform generation
- Simultaneous update of DAC outputs
- External synchronization update possible
- Two's complement or straight binary data to the DAC

Applications

- Process Control and Industrial Automation
- Precision Instrumentation
- Direct Digital Waveform Generation
- Software-Controlled Gain Adjustment
- Automatic Test Equipment

IP interface

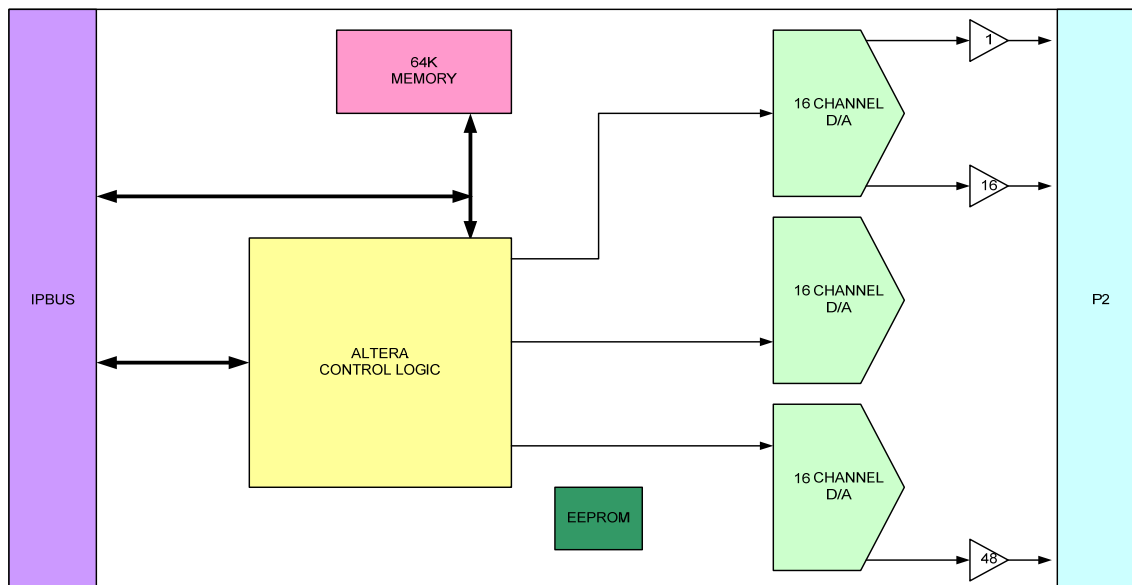
- Compatible with Industry Pack Bus specification
- Identification EEPROM
- 8/32 MHz clock
- 16 bit data

Operating: Environmental

- Operating temperature
Commercial: 0 to +70 °C
Optional: -25°C to +80°C
- Non-operating: -40°C to 85 °C
- Airflow requirement: .5 CFM
- Humidity: 5 to 90% (non-condensing)
- Altitude: 0 to 10'000 ft

Mechanical: Environmental

- Size: Vita 4 Type 1 IP
1.8" x 3.9"
- Power: +5, +12, -12 volts
- Vibration: 0.5G RMS
20-2000 Hz rand
- Shock: 20 G, 11 ms, 1/2 sine
- Weight: tbd
- MTBF: >250000 hours



Functional Block Diagram

ORDERING INFORMATION

Part Number: IP-48DAC16 48 Channel DAC Industry Pack Module
 IP-48DAC-16-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, 1 meter flat ribbon cable, IDC header connector

Alphi Technology Corporation
 6202 South Maple Ave, Suite 120
 Tempe, Arizona 85283, USA
 Tel: (480) 838 2428
 Fax: (480) 838 4477

For ordering information: sales@alphitech.com Please visit our web site at www.alphitech.com