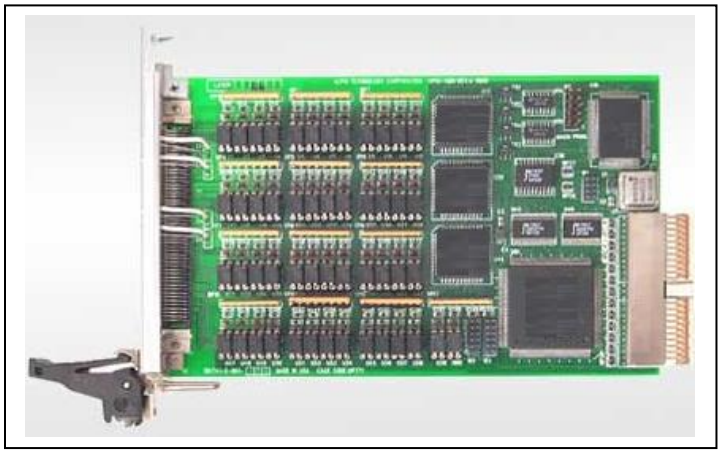
www.alphitech.com

# CPCI-48IN

**CPCI Module**

## CPCI 48 Input I/O Card with FPGA based I/O Controller

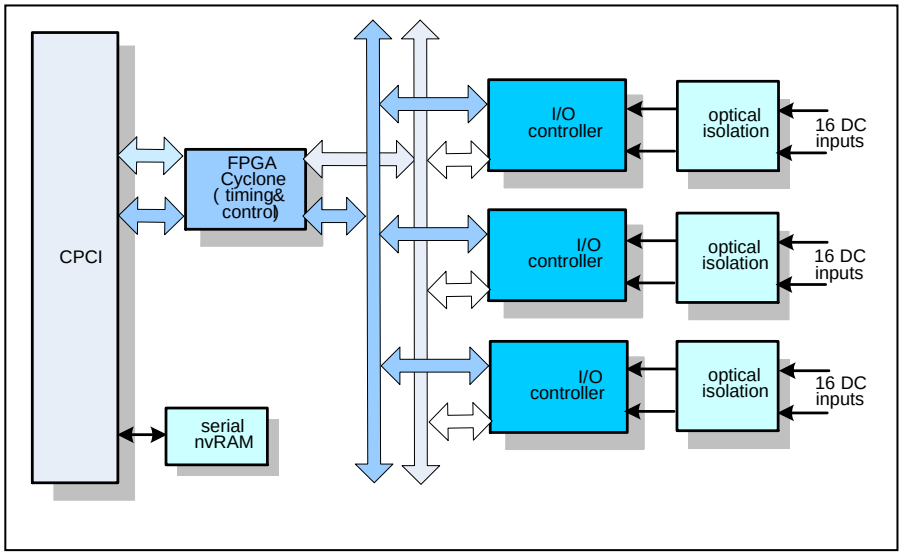
### Features



- Based on FPGA I/O controllers for input monitoring
- compactPCI module
- Front panel I/O
- 48 inputs optically isolated
- Isolated to 2500V
- Input resistance at 2.5KΩ@1/4W
- Input options:5/12/24/30/48
- Logic 0 -3V Max, Logic 1-5V and above
- Less then 100µs Opto Isolator response
- Interrupt on: level low to high, high to low transitions
- Patterns match interrupt
- MTBF >200000 Hours

### Block Diagram Overview

The input board consists of three I/O controllers for DC input control. An FPGA provides the timing and control. Each input has its own optical isolation, and supports a hardware adjustable resistor/opto-diode combination for various input voltage ranges. A PLX 9056 PCI controller provides the interface to the host computer. All I/O is accessible from the front panel.




**Available Software Drivers and Software Tools:**

- C library dll's
- Windows and Linux drivers available

**Applications:**

Used in industrial applications where there is a need to control devices such as LED's, lamps, relays, contactors, etc. Full output system isolation is provided up to 2500V/channel.


741-40-000-4100 **Alphi Technology Corporation**, 1898 E. Southern Ave., Tempe, Arizona, 85282 Rev. 4.0
Telephone: 480.838.2428 Fax: 480.838.4477
Contact Email: engineering@alphitech.com Visit: www.alphitech.com

# CPCI-48IN

**CPCI Module**

## I/O Features

- Two independent 8-bit, double-buffered bidirectional I/O ports
- I/O ports feature programmable polarity
- Programmable direction at the bit level
- Flexible pattern-recognition logic; programmable as a 16-bit vector interrupt controller
- Three independent 16-bit counter/timers with up to four external access lines per counter/timer
- Four handshake modes
- All internal registers are readable and writable
- All registers have own unique address so that they can be accessed directly

## PCI Bus Controller Features:

- PLX 9056 33/66MHz 32-bit, PCI r2.2 compliant
- Motorola PowerQUICC and generic 32-bit, 66MHz local bus modes
- 3.3V I/O, 5V tolerant bus interfaces
- PICMG 2.1 r2.0 hot swap
- Zero wait state burst operation, with PCI bus bursts to 264 MB/sec and local bus bursts to 264 MB/sec
- 2 DMA channels
- Direct master data transfers
- Direct slave data transfers

## I/O Specifications:

- 48 input pins, front panel accessible
- SCSI style front panel connector
- Input current and the input threshold are a function of the hardware adjustable resistor and the input voltage range
  - 4.7K 4V to 30V input 3V threshold
  - 10K 7.5V to 44V input 5.4V threshold
  - 20K 14V to 60V input 9.8V threshold
- Optically isolated to 2500 VDC

## Operating Environment:

- Operating temperature
  Commercial: 0 to +70 ºC
  Optional: -40ºC to +85 ºC
- Non-operating: -50 ºC to +90 ºC
- Airflow requirement – 5 CFM
- Humidity – 5 to 90% (non-cond)
- Altitude – 0 to 10,000 feet

## Mechanical Environment:

- Size – 3U CPCI module
  100mm x 160mm
- Power – 1.5 watt
- Vibration – 0.5G, 20-2000 Hz rand
- Shock – 20G, 11 msec, ½ sine
- Weight – 4 ounces
- MTBF – >250,000 hours

| Ordering Information: | |
|---|---|
| CPCI-48IN-1 | 48 channel input; optically isolated; 4-30V input range |
| CPCI-48IN-2 | 48 channel input; optically isolated; 7.5-44V input range |
| CPCI-48IN-3 | 48 channel input; optically isolated; 14-60V input range |
| | **Optional Accessories** |
| TB-100 | Terminal block and cable |
| CBL-100 | 100 pin cable only |


741-40-000-4100 **Alphi Technology Corporation**, 1898 E. Southern Ave., Tempe, Arizona, 85282
Telephone: 480.838.2428 Fax: 480.838.4477
Contact Email: engineering@alphitech.com Visit: www.alphitech.com