PCM-7248+
PC/104-Plus 48-CH Opto-22 Compatible DIO Module

Features

- PC/104-Plus specifications Rev. 1.2 compliant
- 48-CH TTL/DTL digital inputs/outputs
- Emulates 2 industry standard 8255 PPI (mode 0)
- Buffered circuits for higher driving capacity
- Direct interface with OPTO-22 compatible I/O modules
- Known power-up states
- Output port status read back
- 1-CH 32-bit timer for timed interrupt generation
- 1-CH 16-bit event counter to generate event interrupt
- Programmable interrupt source
- Dual interrupt system
- +12 V and +5 V power available on OPTO-22 connectors
- On board resettable fuses to protect power supply

Operating Systems
- Windows 2000/NT/XP/9x
- DOS
- Red Hat Linux
- Windows CE (call for availability)

Recommended Software
- VB/VC++/BCB/Delphi
- DAQBench

Driver Support
- PCIS-DASK for Windows 2000/NT/XP/9x
- PCIS-DASK/X for Red Hat Linux
- PCIS-OCX ActiveX controls
- PCIS-LVIEW/PnP for LabVIEW *NEW!*

Introduction

ADLINK PCM-7248+ is a 48-bit parallel digital input/output (DIO) module for PC/104-Plus form factor. The header connectors are fully compatible with the industry opto-22 standard. The PCM-7248+ emulates mode 0 of industry standard 8255 Programmable Peripheral Interface (PPI) chips. Each PPI offers three 8-bit ports, Port A, Port B and Port C. The Port C is divided into 2 nibble-wide (4-bit) ports. The total 6 ports can be configured as input or output independently.

The PCM-7248+ device has programmable timers/counters. One 16-bit counter is available for event counting, while the other 32-bit timer is available for timed interrupt generation. The PCM-7248+ device provides multiple programmable interrupt sources from DIO channels, as well as the output of the timer.

Specifications

Digital I/O
- Number of channels: 48
- Compatibility: 5 V/TTL
- Power-on state: input
- Digital logic levels
  - Input high voltage: 2-5.25 V
  - Input low voltage: 0-0.8 V
  - Output high voltage: 2.4 V minimum
  - Output low voltage: 0.5 V maximum
- Output driving capacity
  - Source current: 2.6 mA
  - Sink current: 24 mA
- Data transfers: programmed I/O

General-Purpose Event Counter
- Number of channels: 1
- Resolution: 16 bits
- Compatibility: 5 V/TTL
- Base clock available: P1C4 up to 10MHz

Cascaded Timer
- Number of channels: 1
- Counter width: 32 bits
- Compatibility: 5 V/TTL
- Base clock available: 2 MHz, fixed

Interrupt
- Interrupt #0 sources
  - P1C0
  - P1C3
  - 16-bit event counter
- Interrupt #1 sources
  - P2C0
  - P2C3
  - 32-bit timer (based on 2 MHz internal clock)

General Specifications
- I/O Connector : 50-pin ribbon male x 2
- Operating Temperature: 0 to 60 ˚C
- Storage Temperature: -20 to 80 ˚C
- Relative humidity: 5 to 95%, noncondensing
- Power requirements

Device	+5 V
PCM-7248+	500 mA typical

- Dimensions (not including connectors)
  95.9 mm x 90.2 mm

Termination Boards

- **TB-24R/12**
  Termination Board with 24-CH Relay Outputs @ 12V Coil Voltage (Including One 1.5-meter ACL-10150 Cable)
- **TB-24R/24**
  Termination Board with 24-CH Relay Outputs @ 24V Coil Voltage (Including One 1.5-meter ACL-10150 Cable)
- **TB-24P/24**
  Termination Board with 24-CH Isolated Digital Inputs (Including One 1.5-meter ACL-10150 Cable)
- **TB-16P8R**
  Termination Board with 16-CH Isolated DI & 8-CH Relay Outputs (Including One 1.5-meter ACL-10150 Cable)
- **TB-24**
  General-Purpose Termination Board with Two 37-pin D-sub Connectors and Two 50-pin Ribbon Connectors (Including One 1.5-meter ACL-10150 Cable)
- **DIN-50P**
  Termination Board with a 50-pin Ribbon Connector and DIN-Rail Mounting (Including One 1.5-meter ACL-10150 Cable)
- **DIN-24G**
  Termination Board with 24-CH Grayhill I/O Modules and DIN-Rail Mounting
- **DIN-24P/24**
  Termination Board with 24-CH Isolated Digital Inputs and DIN-Rail Mounting (Including One 1.5-meter ACL-10150 Cable)
- **DIN-24R/12**
  Termination Board with 24-CH Relay Outputs @ 12V Coil Voltage and DIN-Rail Mounting (Including One 1.5-meter ACL-10150 Cable)
- **DIN-24R/24**
  Termination Board with 24-CH Relay Outputs @ 24V Coil Voltage and DIN-Rail Mounting (Including One 1.5-meter ACL-10150 Cable)

CN5 Pin Assignment

PnC7	1	2	+12Vout/GND (User Selection)
PnC6	3	4	+12Vout/GND (User Selection)
PnC5	5	6	GND
PnC4	7	8	GND
PnC3	9	10	GND
PnC2	11	12	GND
PnC1	13	14	GND
PnC0	15	16	GND
PnB7	17	18	GND
PnB6	19	20	GND
PnB5	21	22	GND
PnB4	23	24	GND
PnB3	25	26	GND
PnB2	27	28	GND
PnB1	29	30	GND
PnB0	31	32	GND
PnA7	33	34	GND
PnA6	35	36	GND
PnA5	37	38	GND
PnA4	39	40	GND
PnA3	41	42	GND
PnA2	43	44	GND
PnA1	45	46	GND
PnA0	47	48	GND
+5Vout	49	50	GND

n: means the connector reference number, n=1 ~ 2

Ordering Information

- **PCM-7248+**
  PC/104-*Plus* 48-CH Opto-22 Compatible DIO Module

www.adlinktech.com ＊All specifications are subject to change without further notice.