128-ch Isolated Digital Input PCI Express Card
128-ch Isolated Digital Output PCI Express Card
128-ch Isolated Digital I/O PCI Express Card

Features
PCIE-1758DO and PCIE-1758DIO
- 128 isolated digital output channels (64 channels for PCI-1758DIO)
- High-voltage isolation on output channels (2,500 Vdc)
- Wide output range (5 – 40 Vdc)
- High-sink current for isolated output channels (90 mA max./channel)
- Current protection for each port
- BoardIO™ switch
- Output status read-back
- Digital output value retained after hot system reset
- Programmatic Power-up States
- Watchdog timer

PCIE-1758DI and PCIE-1758DIO
- 128 isolated digital input channels (64 channels for PCI-1758DIO)
- Wide input range (0 – 60 Vdc)
- High ESD protection (2,000 Vdc)
- Digital Filter function
- BoardIO™ switch
- Interrupt handling capability for each channel

Specifications
Isolated Digital Input
- Channels: PCI-1758DI: 128, PCI-1758DIO: 64
- Input Voltage: Logic 0: 2.5 V max., Logic 1: 5 V min. (25 V max.)
- Interrupt Capable Ch.: PCI-1758DI: 128, PCI-1758DIO: 64
- Isolation Protection: 2,500 Vdc
- Opto-Isolator Response: 20 μs
- Input Resistance: 3 kΩ

Isolated Digital Output
- Channels: PCI-1758DO: 128, PCI-1758DIO: 64
- Output Type: Sink (NPN)
- Isolation Protection: 2,500 Vdc
- Output Voltage: 5 – 40 Vdc
- Sink Current: 90 mA max./channel
- Opto-Isolator Response: 20 μs

General
- Bus Type: Universal PCI V2.2
- I/O Connectors: 1 x mini-SCSI HDRA-E100 female connector
- Dimensions (L x H): 175 x 100 mm (6.9” x 3.9”)
- Power Consumption
  - Typical: 5 V @ 0.3 A, 5 V @ 1.1 A, 2.5 V @ 1.2 A
  - Max.: 5 V @ 0.6 A, 5 V @ 2.2 A, 2.5 V @ 1.8 A

Operating Temperature: 0 – 60°C (32 – 140°F) (IEC 68-2-1, 2)
Storage Temperature: -20 – 70°C (-4 – 158°F)
Storage Humidity: 5 – 95% non-condensing

Ordering Information
- PCIE-1758DI-AE: 128-ch Isolated Di PCI Express Card
- PCIE-1758DIO-AE: 128-ch Isolated DIO PCI Express Card
- PCIE-1758DIAE: 128-ch Isolated Digital I/O PCI Express Card

Accessories
- PCL-101100S-1E: 100-pin Mini-SCSI Cable, 1 m
- PCL-101100S-2E: 100-pin Mini-SCSI Cable, 2 m
- ADAM-39100-8E: 100-pin DIN-rail SCSI Wiring Board

Feature Details
Interrupt Function (PCIE-1758DI/ PCIE-1758DIO)
PCI-1758UDI and PCI-1758UDIO provide an interrupt function for every digital input channel. You can disable/enable the interrupt functions, and select trigger type by setting the Rising Edge Interrupt Registers or Falling Edge Interrupt Registers of the card. When the interrupt request signals occur, software will service these interrupt requests by ISR. The multiple interrupt sources provide the card with more flexibility.

Digital Filter Function (PCIE-1758DI/ PCIE-1758DIO)
The digital filter function is used to eliminate glitches on input data and reduce the number of changes to examine and process. The filter blocks pulses that are shorter than the specified timing interval and passes pulses that are twice as long as the specified interval. Intermediate-length pulses that are longer than half of the interval, but less than the interval, may or may not pass the filter.

Pin Assignments

All product specifications are subject to change without notice. Last updated: 10-Sep-2018