PCI-8570/PXI-8570

PCI Control of PXI/CompactPCI

Introduction

The ADLINK PCI/PXI-8570 expansion kit is a PCI-to-PXI or PXI-to-PXI expansion module that functions as a transparent PCI-to-PCI bridge register set. Implementing master and slave extension modules, users can have direct control of PXI/CompactPCI chassis from any other PC or another PXI/CompactPCI system. All devices on the system are deemed to be local devices on the same PCI bus.

The PCI interface supports 64-bit or 32-bit PCI buses operating at 66 MHz or 33 MHz. By adopting shielded twisted copper cables, PCI-8570/PXI-8570 can expand the transmission distance to 10 meters. One master expansion card (either PCI-8570 or PXI-8570) can expand up to 2 slave expansion modules (PXI-8570) at the same time. A bundled link can support the full bandwidth of a 64-bit/66 MHz PCI bus. All interrupts asserted by add-in cards in the expansion system are passed through the expansion set to the host system.

With ADLINK PCI/PXI-8570, users can combine PCI, CompactPCI, and PXI devices in the same system, increase the available number of PXI/CompactPCI slots for high-density I/O application and separate a control system from a harsh environment with an expansion chassis.

Features

- Direct PC control of PXI/CompactPCI systems
- Multi-chassis configurations for PXI/CompactPCI
- Up to 2 PCI segments extended from single PCI/PXI-8570
- Up to 64-bit, 66 MHz PCI bus expansion
- StarFabric link performance
- 528 MB/s peak (64-bit, 66 MHz PCI)
- 132 MB/s peak (32-bit, 33 MHz PCI)
- expansion distance of up to 10 meters (extension cables at 2 M, 5 M, and 10 M)
- Completely hardware and software transparent
- Independence of operating systems
- Seamless PCI interrupt extension
- Compliant with
  - PCI local Bus Specifications Rev. 2.2
  - PCI-to-PCI Bridge Architecture Specifications Rev. 1.1
  - PXI Specifications Rev. 2.2

PCI-8570

PXI-8570

ACL-PXIES-2/-5/-10

General Specifications

- Operating temperature: 0°C to +50°C (32°F to 122°F)
- Storage temperature: -20°C to +80°C (-4°F to 176°F)
- Relative humidity: 10% to 90%, non-condensing

Certification

- EMC/EMI: CE, FCC Class A

Ordering Information

- **PCI-PXI Expansion Kit**
  Includes One PCI-8570, One PXI-8570, and One ACL-PXIES-2 Cable
- **PXI-PXI Expansion Kit**
  Includes Two PXI-8570 and One ACL-PXIES-2 Cable
- **PCI-8570**
  PCI-to-PXI Expansion Interface Card for Host PC
- **PXI-8570**
  PCI-to-PXI/PXI-to-PXI Expansion Interface Module for PXI Chassis
- **ACL-PXIES-2**
  Copper Cable Kit, 2 M
- **ACL-PXIES-5**
  Copper Cable Kit, 5 M
- **ACL-PXIES-10**
  Copper Cable Kit, 10 M

Specifications

PCI-8570	• PCI™ local bus specifications Rev. 2.2 compliant • Maximum data throughput - 132 MB/s (32-bit, 33 MHz PCI) - 528 MB/s (64-bit, 66 MHz PCI) • I/O Connector: RJ-45 connector x 4 • Extended distance of up to 10 meters • Dimensions (not including connectors): 160 mm (H) x 100 mm (W) (6.24" x 3.9") • Power requirement:

Device	+5 V	+3.3 V
PCI-8570	190 mA	250 mA

PXI-8570	• PXI™ Specifications Rev. 2.2 compliant • PCI-to-PCI Bridge Architecture Specifications Rev. 1.1 compliant • PCI™ Local Bus Specifications Rev. 2.2 compliant • Supports both 32-bit/66 MHz and 64-bit/66 MHz PCI™ interface • I/O Connector: RJ-45 connector x 4 • Internal arbiter supports up to 7 external masters • Up to seven PCI clock/bus requests • Extended distance of up to 10 meters • Dimensions: 3U PXI form factor 175 mm (W) x 107 mm (H) (6.82" x 4.17") • Power requirement

Device	+3.3 V
PXI-8570	540 mA

ACL-PXIES-2/-5/-10	• Length: 2 M, 5 M, 10 M

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