

# PCI-8570, PXI-8570

## PCI-to-PXI, PXI-to-PXI Extension

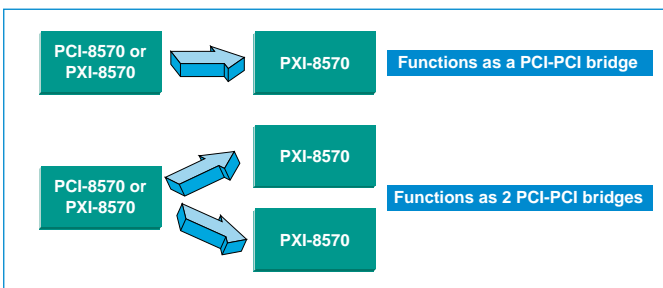
### Features

- Direct PC control of PXI/CompactPCI systems
- Multi-chassis configurations for PXI/CompactPCI
- Up to 2 PCI segments from single 8570
- PCI local bus specifications Rev. 2.2 compliant
- PCI to PCI bridge architecture specifications Rev. 1.1 compliant
- PXI specifications Rev2.0 compliant
- Up to 64-bit, 66 MHz PCI bus extension
- StarFabric link performance
  - 528 Mbytes/s peak (64-bit, 66 MHz PCI)
  - 132 Mbytes/s peak (32-bit, 33 MHz PCI)
- Shielded copper cabling
- 10 m maximum distance
- Completely hardware and software transparent
- Independent of operating systems
- Seamless PCI interrupt extension



### Introduction

The ADLINK PCI-8570 and PXI-8570 expand the capabilities of PCI by providing high level of scalability and reliability to PCI based system. Using StarGen's StarFabric technology, the system extension sets provide a low latency, high throughput path to PCI slots in an expansion chassis. In addition, the single PCI-8570 (or PXI-8570) could extend to 2 PCI segments, resulting in controlling 2 PXI/CompactPCI chassis with a single controller at lower cost.



The system extension set incorporates the fastest, most flexible extension technology for controlling PXI/CompactPCI systems from a stand-alone PC. ADLINK PXI/PCI-8570 function in a two-card configuration, the PCI-8570 or PXI-8570 is inserted in the controlling PC or PXI chassis. Through the copper cables, the PCI bus signals are extended to the receiving card, the other PXI-8570 in the extension chassis. The devices just function as a transparent PCI-to-PXI bridge, and give you direct control of PXI from another PC or multichassis PXI systems.

ADLINK PXI/PCI-8570 employ the StarFabric architecture, a well-known physical layer technology, with a serial interconnect at 622 Mbps low voltage differential signaling (LVDS). Four transmit and receive differential pairs are used to provide 2.5 Gbps full duplex link bandwidth. Using shielded twisted pair copper cable can extend the transmission distance to 10 m. The PCI interface supports 64-bit or 32-bit PCI buses operating at 66 MHz or 33 MHz. A bundled link can support the full bandwidth of 64-bit/66 MHz PCI bus.

All interrupts asserted by add-in cards in the extension system are passed through the extension set to the host system. PXI/PCI-8570 are built in a transparent architecture, and function independently of the operating system. A PCI-to-PXI bridge function in the system extension set provides 100% capability with PCI drivers, application software, BIOS, O/Ss, configuration codes, etc. ADLINK PCI-to-PXI and PXI-to-PXI extension sets feature great scalability for high density I/O applications, and could separate the control system from the harsh environment with the extension chassis.

### Specifications

#### Architecture

- Functions as a PCI-to-PXI bridge
- PCI-to-PXI bridge architecture specifications Rev. 1.1 compliant
- PCI local bus specifications Rev. 2.2
- PXI specifications Rev. 2.0 compliant
- 64-bit, 66 MHz PCI bus extension
- Maximum data throughput
  - 132 Mbytes/s (32-bit, 33 MHz PCI)
  - 528 Mbytes/s (64-bit, 66 MHz PCI)

#### Certificates

- EMC/EMI: CE, FCC Class A

#### General Specifications

- I/O Connector: RJ-45 connector x 4
- Maximum cable length: 10 m
- Operating temperature: 0 to 55 °C
- Storage temperature: -20 to 80 °C
- Relative humidity: 10 to 90%, noncondensing
- Power requirements

Device	+5V	+3.3V
PCI-8570	190 mA	250 mA
PXI-8570	—	540 mA

- Dimensions (not including connectors)

Device	Dimension
PCI-8570	175 mm x 107 mm
PXI-8570	160 mm x 100 mm

### Ordering Information

- **PCI-8570**  
PCI-to-PXI Extension Interface Card for PCI Chassis
- **PXI-8570**  
PXI Extension Interface Module for PXI Chassis
- **PXI System Extension Cable Kit**
  - ACL-PXIES-2  
2 m Copper Cable Kit for PXI System Extension
  - ACL-PXIES-5  
5 m Copper Cable Kit for PXI System Extension
  - ACL-PXIES-10  
10 m Copper Cable Kit for PXI System Extension

Note: For different configurations, please go to <http://www.adlinktech.com> or contact local sales offices.