PCIS-8580-4S/PCIS-8580-13S

PCI-to-PCI Expansion Systems

PCIS-8580-4S

PCIS-8580-13S

Introduction

The ADLINK PCIS-8580 is a PCI-to-PCI expansion system to expand the PCI buses of host computers. With its state-of-the-art StarFabric high-speed serial link technology, you can expand your PCI bus of a host computer to an external chassis, which accommodates four (PCIS-8580-4S) or 13 (PCIS-8580-13S) additional PCI slots. This advanced technology provides full 32-bit/33 MHz PCI bandwidth (132 MB/s) and a maximum of 10 M distance between host computer and expansion chassis. The ADLINK PCI-to-PCI expansion system utilizes the concept of "serialized bridge" to provide complete hardware and software transparency to your host system. Any hardware installed in the extension chassis works as if it is directly installed inside the host system without the need for additional drivers or software.

The ADLINK PCIS-8580 PCI-to-PCI expansion system is composed of three major components: a PCI expansion card (LPCI-8575), an expansion chassis (RK-8005/RK-8014), and a cable (ACL-PCIEXT-2). The PCI expansion card is the core of this system. It acts as a PCI bridge with the capability to serialize PCI signals and maintain a 5 Gbps serial link between the host system and expansion chassis. The expansion chassis, which is a 4-slot wall-mount chassis (RK-8005) or a 13-slot rack-mount chassis (RK-8014), is the platform to accommodate PCI slots. It contains a backplane, a power supply, and a pre-installed PCI extension card. The cable, which consists of DVI-D connector and shielding twisted pairs, provides robust connectivity and maintains proper signal quality between the host computer and the expansion chassis.

LPCI-8575

RK-8005

RK-8014

ACL-PCIEXT-2/-5/-10

Features

- Compliant with PCI local bus specification Rev 2.2
- Compliant with PCI bridge architecture specification Rev 1.2
- PCIS-8580-4S expands four PCI slots in a shoebox size wall-mount chassis with built-in 200 W power supply
- PCIS-8580-13S expands 13 full-size PCI slots in a 19" rack-mount chassis with built-in 400 W power supply
- Full 32-bit/33 MHz PCI bandwidth extension (132 MB/s)
- Extension distance of up to 10 meters (expansion cables at 2 M, 5 M, and 10 M)
- Complete hardware and software transparency
- 24-pin DVI-D connector for robust connectivity

General

- Operating temperature: 0°C to 50°C
- Storage temperature: -20°C to 80°C
- Relative humidity: 10% to 90%, non-condensing

Ordering Information

- **PCIS-8580-4S**
  Includes One LPCI-8575, One RK-8005, and One ACL-PCIEXT-2 Cable
- **PCIS-8580-13S**
  Includes One LPCI-8575, One RK-8005, and One ACL-PCIEXT-2 Cable
- **ACL-PCIEXT-2**
  Optional 2 M Expansion Cable
- **ACL-PCIEXT-5**
  Optional 5 M Expansion Cable
- **ACL-PCIEXT-10**
  Optional 10 M Expansion Cable

Specifications

LPCI-8575

- PCI local bus specification Rev 2.2 compliant
- PCI bridge architecture specification Rev 1.2 compliant
- Supports both 5 V and 3.3 V PCI buses
- Data throughput: full 32-bit/33 MHz PCI bandwidth (132 MB/s)
- I/O connector: DVI-D 24-pin connector
- Maximal extended distance: 10 M
- Power requirements

+5 V	+3.3 V
190 mA	250 mA

RK-8005

- Dimensions: 122 mm (W) x 195 mm (H) x 259 mm (D)
- Weight: 3.2 kg
- Backplane: Five 32-bit/33 MHz half-sized PCI slots
  - 1 slot for expansion card
  - 4 slots available for PCI cards
- Power supply
  - Input voltage: 85 VAC to 265 VAC
  - Output: 200 W
- Cooling: One 80 mm ball bearing fan

RK-8014

- Dimension: 483.5 mm (W) x 177 mm (H) x 448.5 mm (D)
- Weight: 12 kg
- Backplane: 14x 32-bit/33 MHz full-sized PCI slots
  - 1 slot for expansion card
  - 13 slots available for PCI cards
- Power supply
  - Input voltage: 85 VAC to 265 VAC, auto-switching
  - Output: 400 W
- Cooling: Two 120 mm ball bearing fans

ACL-PCIEXT-2/-5/-10

- Length: 2M, 5M, 10M

PCI-to-PCI Expansion Systems

System Model	Host Bus Type	Expansion Bus Type	Slots No.	Expansion System Includes				Cable Option
				Card (Host)	Card (Extend)	Expansion Chassis	Accessory	
PCIS-8580-4S	PCI	PCI	4	LPCI-8575	LPCI-8575	RK-8005	ACL-PCIEXT-2	ACL-PCIEXT-5/-10
PCIS-8580-13S	PCI	PCI	13	LPCI-8575	LPCI-8575	RK-8014	ACL-PCIEXT-2	ACL-PCIEXT-5/-10