

**NEW**

# ECS-8582-4S

## 4-slot ExpressCard-to-PCI Extension System

### Features

- Direct control of PCI™ cards via laptop computer
- Provides four extended PCI™ slots for half-size PCI™ cards in a shoebox size wall-mount chassis with built-in 200 W power supply
- Full 32-bit/33 MHz PCI™ bandwidth extension (132 MB/s)
- Extension distance of up to 7 meters (extension cables at 1 M, 3 M, and 7 M)
- Comprehensive hardware and software transparency
- Compliant with
  - ExpressCard™ Standard Release 1.2
  - PCI Express® Base Specification Rev. 1.0a
  - PCI-to-PCI Bridge Architecture Specification, Revision 1.2
  - PCI™ Local Bus Specification, Revision 3.0



ECS-8582-4S

### Introduction

Harnessing the bandwidth potential and convenience of ExpressCard™ technology, the ECS-8582-4S extension system enables a laptop computer with an ExpressCard™ slot to remotely manage and control PCI™ devices installed in an extension chassis. ExpressCard™ technology leverages the features of PCI Express® bus but in a small form factor for laptop computer usage. With ECS-8582-4S, laptop users can easily plug an ExpressCard host adapter into the laptop, and then cable it to an extension chassis up to 7 meters away. The extension chassis is capable of accommodating four half-size PCI™ cards with built-in power supply. The ECS-8582-4S extension system operates in 32-bit/33 MHz configuration with 132 MB/s full PCI™ bandwidth and comes with comprehensive hardware and software transparency. PCI™ cards installed in the extension system behave and work as if these are directly installed into the host system, requiring no additional drivers or software installation. ADLINK ExpressCard-to-PCI extension system brings great convenience for laptop users to perform portable test and measurement applications with various I/O requirement in all kinds of environments.

### Expand PCI™ connectivity from a laptop computer

For laptop users, a major limitation is to connect external devices for specific tasks. A laptop usually provides only USB and LAN connectivity and has no means of PCI™ connectivity. With the ECS-8582-4S extension system, however, this limitation is removed. Users can use a laptop computer with an ExpressCard™ slot to manage and control PCI™ cards installed in the extension chassis. The ECS-8582-4S extension system works as a transparent bus bridge and requires no additional software or driver installation, so that users can control PCI™ cards as if they are directly installed in the same computer. Any program written for a desktop or IPC can be executed on a laptop now with the extended PCI™ connectivity with ECS-8582-4S.

### The ExpressCard-to-PCI extension technology

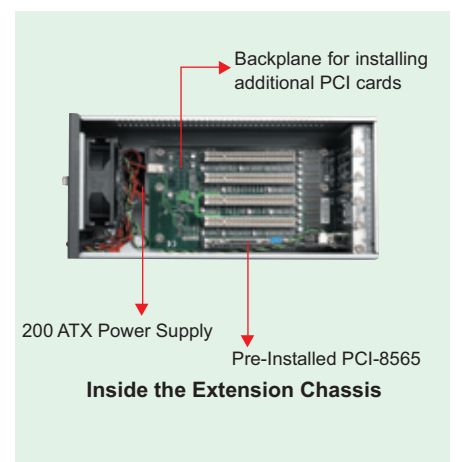
The ECS-8582-4S extension system consists of an EC-8560 installed in the laptop computer, a RK-8005 extension chassis with pre-installed backplane and PCI-8565 extension card to accommodate PCI™ cards, and a cable to connect them. The EC-8560 is an ExpressCard/34 module that re-drives the PCI Express® signal and transmits it through the cable. On the other side, the PCI-8565 installed in the extension chassis equalizes the signal and works as a PCI Express-to-PCI bridge to accommodate four 32-bit/33 MHz PCI™ slots. Operating with full 132 MB/s PCI™ bandwidth, the ECS-8582-4S delivers an easy solution for bus extension without any sacrifice of performance.

### Note

Due to the BIOS design, some laptop computers may be limited by system resource allocation for external PCI™ devices. ADLINK tests various laptop computers for compatibility with the ECS-8582-4S. Please visit the ADLINK website or contact us for compatibility information.



Expand PCI connectivity from a laptop computer



Inside the Extension Chassis

## Specifications



### EC-8560

- Compliant with ExpressCard™ Standard Release 1.2
- Compliant with PCI Express® Base Specification Rev. 1.0a
- PCI Express® x1 link with 250 MB/s data throughput
- Extended distance of up to 7 meters
- Dimension: ExpressCard/34 (108 mm (W) x 34 mm (H))
- Power requirements:

Device	+3.3 V
EC-8560	210 mA



### PCI-8565 (Installed in the RK-8005 chassis)

- Compliant with PCI-to-PCI Bridge Architecture Specifications Rev. 1.2
- Compliant with PCI™ Local Bus Specifications Rev. 3.0
- Supports 5 V and 3.3 V PCI™ bus
- Supports 32-bit/33 MHz full data throughput
- Extended distance of up to 7 meters
- Dimensions: Low-profile PCI™ add-on card (64 mm (H) x 120 mm (W))
- Power requirements:

Device	+3.3 V
PCI-8565	720 mA



### RK-8005 (for ECS-8582-4S)

- Dimensions: 122 mm (W) x 195 mm (H) x 259 mm (D)
- Weight: 3.2 kg (7.04 lb)
- Backplane: Five 32-bit/33 MHz half-sized PCI™ slots
  - One slot for extension card
  - Three slots available for PCI™ cards
- Power supply:
  - Input voltage: 85 V<sub>AC</sub> to 265 V<sub>AC</sub>
  - Output: 200 W
- Cooling: One 80 mm ball bearing fan



### ACL-EXPRESS-11-3/-7

- Length
  - ACL-EXPRESS-1: 1 M
  - ACL-EXPRESS-3: 3 M
  - ACL-EXPRESS-7: 7 M
- Construction: Shielded twisted pair copper cable
- Signal bandwidth: 2.5 Gbps

## General Specifications

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

## Applications

- Laptop-based measurement and control
- Military/aerospace
- Video/audio testing
- Portable testing system

## Ordering Information

- ECS-8582-4S**  
4-slot ExpressCard-to-PCI Extension System, including the EC-8560 extension card, RK-8005 4-slot extension chassis, and an ACL-EXPRESS-3 cable
- ACL-EXPRESS-1**  
Optional 1 M extension cable
- ACL-EXPRESS-3**  
Optional 3 M extension cable
- ACL-EXPRESS-7**  
Optional 7 M extension cable

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