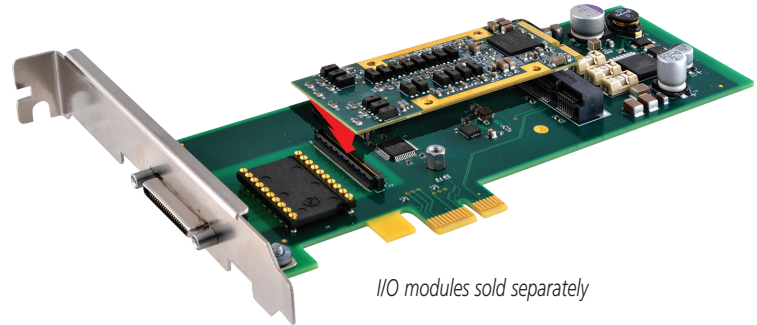
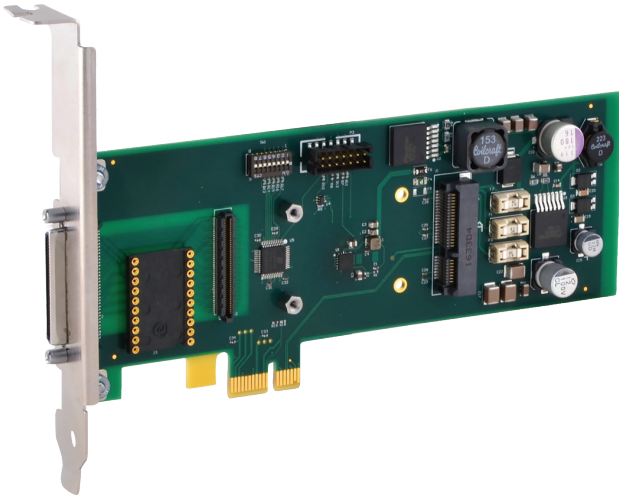


# AcroPack® Carriers

## APCe7000 Series PCI Express Carrier Cards for AcroPack® Modules



I/O modules sold separately

One AcroPack or mini-PCIe mezzanine module slot ♦ Low-profile PCIe carrier card

### Description

Model: APCe7012E-LF

The AcroPack® product line updates our popular Industry Pack I/O modules with a PCIe interface format. This tech-refresh design offers a compact size, low-cost I/O, the same functionality and memory map of the existing Industry Pack modules.

This board interfaces one AcroPack mezzanine module to a PCI Express bus on a PC-based computer system.

Select I/O modules from Acromag's offering or use most third-party mPCIe compliant modules.

### Key Features & Benefits

- One AcroPack or mini-PCIe module slot
- PCI Express compliant
- Plug-and-play carrier configuration and interrupt support
- Fused +1.5V, +3.3V, +5V, +12V, and -12V DC power is provided. A fuse is present on each supply line serving each AcroPack module.
- Front panel 68-pin CHAMP 0.8mm connectors for field I/O signals
- Optional isolated power supplies. Support for AcroPacks requiring ±12 Volt isolated power.
- Extended temperature range
- DIP switch card identification
- Standard 14-pin Xilinx JTAG programming header
- Software development tools for VxWorks®, Linux®, and Windows® environments.

**Acromag**   
THE LEADER IN INDUSTRIAL I/O

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## Performance Specifications

### ■ PCI Express Bus Compliance

This device meets or exceeds all written PCI Express specifications per revision 2.1.

The host port consists of one PCIe lane, each of the mini-PCIe sites have one lane each.

### ■ I/O Interface

#### Connectors

P1 (PCIe Bus): PCIe V2.1.

J3 (Carrier Field I/O): 68-pin, CHAMP (TE Connectivity 5796055-1).

P2,(AcroPack Field I/O): 100-pin socket (Samtec SS5-50-3.00-L-D-K-RT).

J1, (Mini-PCIe): 52-pin socket (TE Connectivity 1759547-1).

P3 (JTAG): 14-pin header (Molex 87832-1420).

Gold plating in the connection area, M2.5 screws and spacers provide excellent connection integrity and stability for harsh environments.

### ■ Ease of Use

A standard 14-pin Xilinx JTAG programming header is provided for programming and debugging the FPGA on some AcroPack modules.

### ■ Physical

#### Physical Configuration

PCIe x1 low-profile

Length: 6.3 inches (160 mm).

Height: 2.711 inches (68.86 mm).

Includes standard and low-profile brackets.

### ■ Environmental

#### Operating temperature

-40 to +85°C

#### Storage temperature

-55 to +125°C.

#### Relative humidity

5 to 95% non-condensing.

#### Power

+3.3 Volts (±10%): 0.55mA typical

+12 Volts (±5%): 25mA Typical

The APCe7012E-LF has DC/DC converters to provide the power supply voltages to the AcroPack modules that are not present at the host interface. The +1.5 Volt supply is sourced from the +3.3 Volt host power. The +5 Volt and -12 Volt supply is sourced from +12 Volt host power.

## Ordering Information

### Carrier Card

[APCe7012E-LF](#): AcroPack carrier card for AcroPack or mPCIe modules, one module slot.

See [Acromag.com/AcroPacks](#) for a full list of I/O modules.

### Accessories

[5025-288](#): Termination panel, DIN-rail mountable, SCSI-3 connector, 68 screw terminals.

[5028-420](#): Round cable, shielded, male SCSI-3 connector to 68-pin CHAMP. 0.8mm, 2 meters long.

[5028-615](#): Cable, 68-pin CHAMP to pigtail, 36 inches long.

[5028-616](#): Cable, 68-pin CHAMP to pigtail, 70 inches long.

### Software (see software documentation for details)

[APSW-API-VXW](#): VxWorks software support package

[APSW-API-WIN](#): Windows DLL driver software support pkg

[APSW-API-LNX](#): Linux<sup>®</sup> support (website download only)

