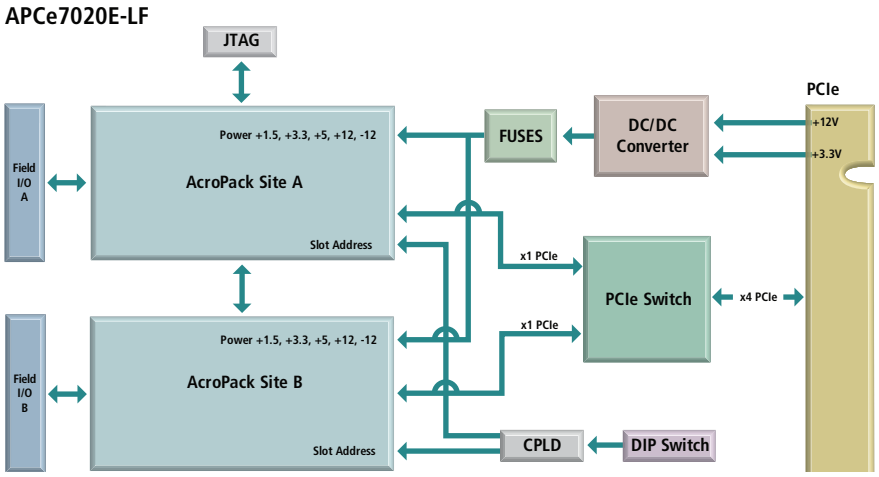
AcroPack® Module Carriers

APCe7000 Series PCI Express Carrier Cards for AcroPack® Modules

CE 2 YEAR WARRANTY RoHS Compliant



Two AcroPack or mini-PCIe mezzanine module slots ◆ Non-Intelligent carrier card ◆ PCIe x4 interface

Description

Model: APCe7020E-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.

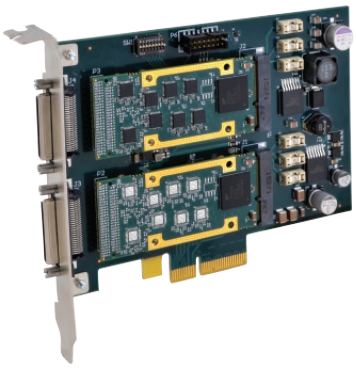
This board interfaces two AcroPack mezzanine modules to a PCI Express bus on a PC-based computer system.

Two AcroPack module slots give you the freedom to mix a variety of I/O functions (A/D, D/A, digital in, digital out, serial I/O, etc.) on a single board. Or, combine modules of the same type for almost one hundred channels on a single card. Either way, the APCe7020 saves your precious card slots and reduces your costs.

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

Key Features & Benefits

- Two AcroPack or mini-PCIe module slots support any combination of I/O functions
- 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 SCSI-2 connectors for field I/O signals
- Extended temperature range
- DIP switch card identification
- Standard 14-pin Xilinx JTAG programming header
- Software development tools for VxWorks, Linux, and Windows environments



APCe7020 populated with two Acromag AcroPack modules

Acromag® THE LEADER IN INDUSTRIAL I/O

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Bulletin #8400-883d

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Performance Specifications

PCI Express Bus Compliance

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

Includes a PCIe Gen 2 switch to expand the single host PCIe port to two ports, one to each device (AcroPack or mini-PCIe).

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

I/O Interface

Front I/O

Connector: 50-pin 0.8mm Champ cable connection. Pin assignments are defined by the installed AcroPack or mini-PCIe module.

The field side connector of the AcroPack I/O module mates to a Samtec SS5-50-3.00-L-D-K-TR socket connector P2 on the carrier board.

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

Ease of Use

A unique carrier and site number can be set for each AcroPack site by a DIP switch. This provides the capability to distinguish a particular AcroPack module from others when multiple instances of the same module are used in a system.

A standard 14-pin Xilinx JTAG programming header is provided for programming and debugging the FPGA on some AcroPack modules. The JTAG ports of the two AcroPack modules are daisy-chained.

Physical

Physical Configuration
PCIe x4 lane
Length: 5.158 inches (131.01 mm)
Height: 3.918 inches (99.52 mm)

Field I/O Connector
50-pin male header; 2 mini-PCIe connectors, 2 field I/O Champ connectors; 1 PCI Express bus interface connector.

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 APCe7020E-LF has three 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

APCe7020E-LF
AcroPack carrier card for AcroPack or mPCIe modules, plus extended temperature range

Accessories

5028-372
Round cable, shielded, SCSI-2 to CHAMP. 0.8mm, 2 meters long.

5028-378
Termination panel, SCSI-2 connector, 50 screw terminals

AcroPack® Modules

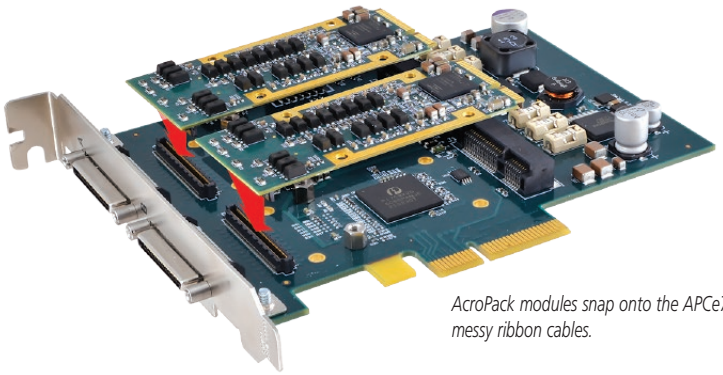
See www.Acromag.com/AcroPacks for more information.

Software Development Tools

APSW-API-VXW
VxWorks® software support package

APSW-API-WIN
Windows® DLL driver software support package

APSW-API-LNX
Linux® support (website download only)



AcroPack modules snap onto the APCe7020, eliminating messy ribbon cables.

ISO9001
AS9100
MADE IN USA

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