

ARTISAN®
TECHNOLOGY GROUP

Your **definitive** source for quality pre-owned equipment.

Artisan Technology Group
(217) 352-9330 | sales@artisantg.com | artisantg.com

Full-service, independent repair center
with experienced engineers and technicians on staff.

We buy your excess, underutilized, and idle equipment
along with credit for buybacks and trade-ins.

Custom engineering
so your equipment works exactly as you specify.

- Critical and expedited services
- In stock / Ready-to-ship
- Leasing / Rentals / Demos
- ITAR-certified secure asset solutions

Expert team | Trust guarantee | 100% satisfaction

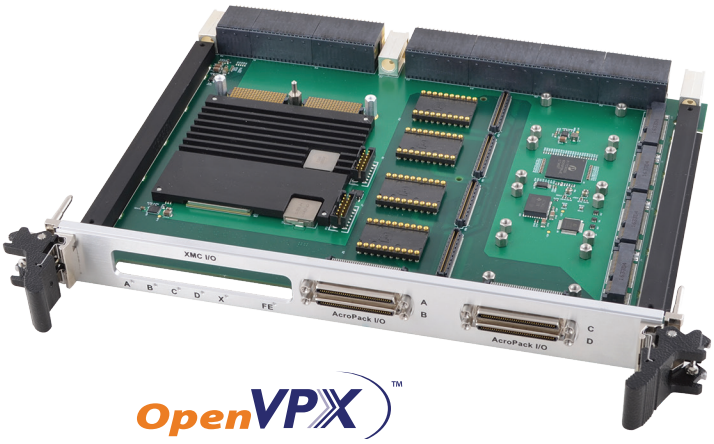
All trademarks, brand names, and brands appearing herein are the property of their respective owners.

Find the *Acromag / Xembedded / Xycom VPX4500* at our website: ***Click HERE***

AcroPack® Carriers

VPX4500 Series VPX Carrier Cards for XMC and AcroPack® Modules

CE 2 YEAR WARRANTY RoHS Compliant





PCIe x16 Gen 3 interface via Expansion plane ◆ One XMC and Four AcroPack slots ◆ 6U form factor

Description

Models

VPX4520-42-20: Vita 42, Air-cooled.
VPX4520-42-30: Vita 42, Air-cooled, Ext. Temp.
VPX4520-42-50: Vita 42, Conduction-cooled.
VPX4520-61-20: Vita 61, Air-cooled.
VPX4520-61-30: Vita 61, Air-cooled, Ext. Temp.
VPX4520-61-50: Vita 61, Conduction-cooled.

The VPX4520 carrier card provides a simple and cost-effective solution for interfacing one XMC and four AcroPack modules to a VPX computer system.

Connect to the OpenVPX™ compatible system via Expansion plane for a direct PCIe connection over the VPX backplane. This allows host processors access to a high-performance, low latency interconnect to the AcroPack and XMC modules on the carrier card.

By inserting AcroPack or XMC industrial I/O developers can now leverage hundreds of available functions currently unavailable in a VPX platform.

These carriers are ideal for high-performance industrial, defense, scientific research, and telephony systems requiring high-speed I/O expansion. The VPX4520 is available in two versions: air-cooled and conduction-cooled.

The VPX4520 is a member of a 6U OpenVPX mezzanine carrier card family that supports a simple and cost-effective solution for interfacing XMC or AcroPack modules to OpenVPX computer systems.

Key Features & Benefits

- OpenVPX™ compatible via expansion plane connection
- Support upstream/downstream PCIe links
- Supports use of prXMC single board computers
- Optional backplane configuration for one 16-lane port, two 8-lane ports, or four 4-lane ports
- Supports standard VITA 42 and rugged VITA 61 XMC modules on 25W mezzanine site
- XMC site supports PCIe x8 Gen 3 interface
- 68 pin HD CHAMP front I/O connectors
- Supports 78-bits (39 pairs) of XMC I/O to backplane per pattern X38s+X8d+X12d of VITA 46.9
- Conforms to VITA 42.0, 42.3, 46.0, 46.4, 48, 65
- Supports front or rear panel XMC I/O
- Supports front or rear panel AcroPack I/O
- ±12V AUX power to XMC site

Acromag® THE LEADER IN INDUSTRIAL I/O

Tel: 844-878-2352 ■ solutions@acromag.com ■ www.acromag.com ■ 30765 Wixom Rd, Wixom, MI 48393 USA

AcroPack® Carriers

ISO9001
AS9100
MADE IN USA

Performance Specifications

NOTE: Specifications below only for VPX4520 carrier. See AcroPack and XMC data sheets for additional specifications.

PCI Express Bus Compliance

This device meets or exceeds all written PCI Express Base specifications per revision 3.1.

Includes a PCIe Gen 3 capable PCIe switch used to expand backplane PCIe port to multiple ports supporting various expansion cards. (AcroPack or mini-PCIe).

Downstream PCIe switch used to provide four one-lane PCIe ports to AcroPack devices.

Ease of Use

A unique carrier and site number is set via slot address. 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 four AcroPack modules are daisy-chained together.

There is a separate 14-pin Xilinx JTAG header provided for accessing devices on an XMC mezzanine module.

General

Form Factor
6U VPX bus 6.299" (160mm) x 9.173" (233.0mm).

Pitch
1".

VPX Carrier Interface
Compatible VITA 65 module / slot profiles:
MOD6-PER-1Q-12.3.5-n Expansion Plane PCIe Gen1/2/3.

FRU EEPROM with temperature monitor.

Mezzanine Sites
One VITA 42 or VITA 61 XMC module.

XMC site is PCIe Gen 3 and 8 lanes wide.

Front panel I/O support for each AcroPack site with 68-pin CHAMP connector (air-cooled only).

Front panel I/O support for XMC module (air-cooled only).

Rear I/O support for the AcroPack site with 50 I/O lines. (conduction-cooled only).

XMC rear I/O compliance is P3w3-X38s+P4w1-X12d+x8d.

Power Requirements

Power For Carrier Board Only
+12V (VS1) - 0.9A typical, 1.5A maximum.

Environmental

Air-Cooled Operating Temperature
Standard models: 0 to 70°C.
Extended temperature models: -40 to 85°C.

Conduction-Cooled Operating Temperature Range
-40 to 85°C (board must operate in a fully-installed conduction-cooled rack).

Storage Temperature Range
-55 to 125°C.

Relative Humidity
5 to 95% non-condensing.

Vibration
Designed to comply with VITA 47 Class V1.

Shock
Designed to comply with VITA 47 Class OS1.

Ordering Information

Carrier Cards

VPX4520-42-20
VPX 6U carrier, expansion plane, hosts four AcroPacks and one Vita 42 XMC, air-cooled.

VPX4520-42-30
VPX 6U carrier, expansion plane, hosts four AcroPacks and one Vita 42 XMC, extended temp.

VPX4520-42-50
VPX 6U carrier, expansion plane, hosts four AcroPacks and one Vita 42 XMC, conduction-cooled.

VPX4520-61-20
VPX 6U carrier, expansion plane, hosts four AcroPacks and one Vita 61 XMC, air-cooled.

VPX4520-61-30
VPX 6U carrier, expansion plane, hosts four AcroPacks and one Vita 61 XMC, extended temp.

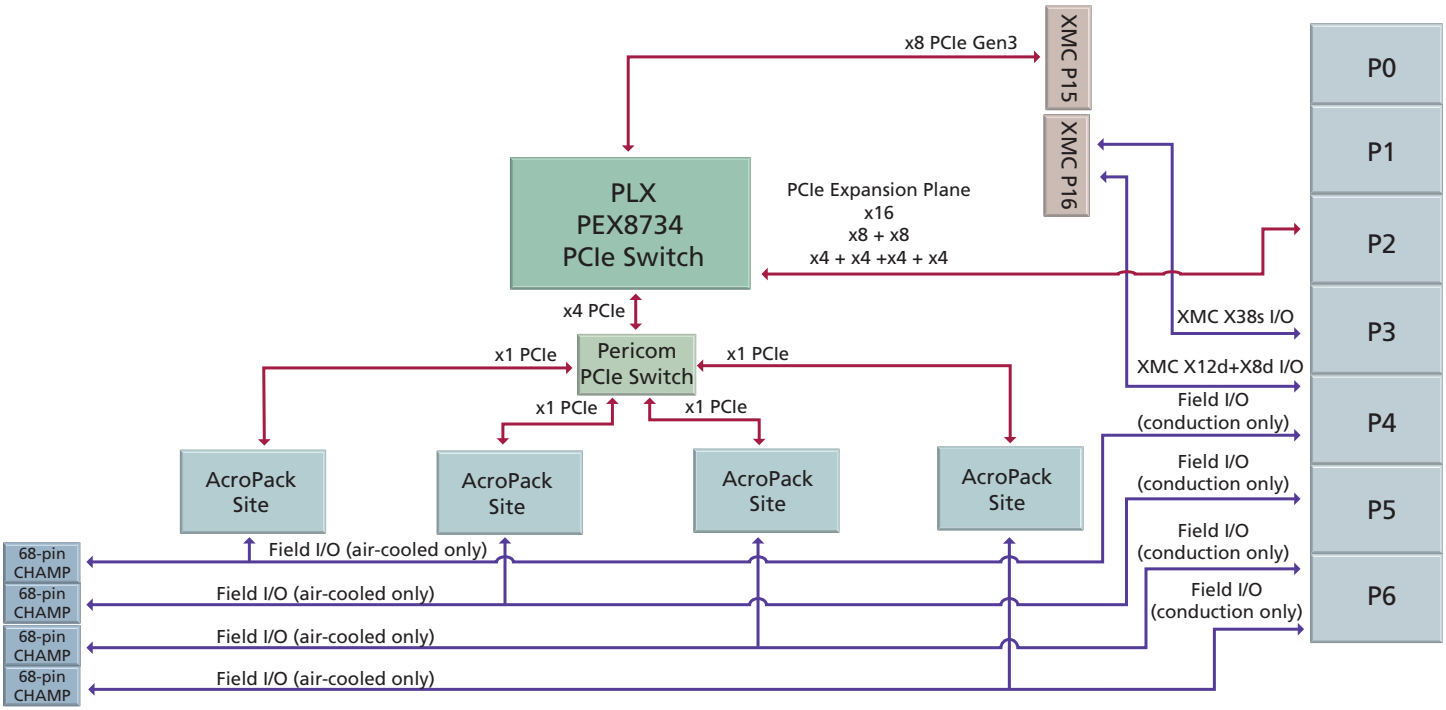
VPX4520-61-50
VPX 6U carrier, expansion plane, hosts four AcroPacks and one Vita 61 XMC, conduction-cooled.

See Acromag.com/AcroPacks for a full list of I/O modules.

Accessories

5025-288
Termination panels, 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.



Tel: 844-878-2352 ■ solutions@acromag.com ■ www.acromag.com ■ 30765 Wixom Rd, Wixom, MI 48393 USA

All trademarks are property of their respective owners. Copyright © Acromag, Inc. 2019. Data subject to change without notice. Printed in USA 9/2019.

Artisan Technology Group is an independent supplier of quality pre-owned equipment

Gold-standard solutions

Extend the life of your critical industrial, commercial, and military systems with our superior service and support.

We buy equipment

Planning to upgrade your current equipment? Have surplus equipment taking up shelf space? We'll give it a new home.

Learn more!

Visit us at **artisantg.com** for more info on price quotes, drivers, technical specifications, manuals, and documentation.

Artisan Scientific Corporation dba Artisan Technology Group is not an affiliate, representative, or authorized distributor for any manufacturer listed herein.

We're here to make your life easier. How can we help you today?

(217) 352-9330 | sales@artisantg.com | artisantg.com

ARTISAN® TECHNOLOGY GROUP