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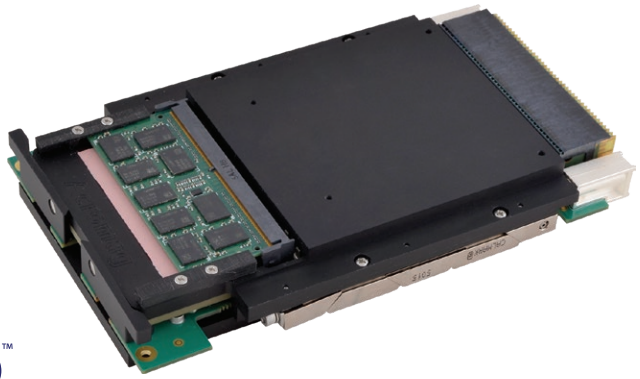
Find the *Acromag VPX6600-CC-LF* at our website: ***Click HERE***

# VPX Processor Boards

## VPX6600 3U AcroExpress® VPX CPU Air or Conduction-Cooled

CE 2 YEAR WARRANTY RoHS Compliant



OpenVPX™

6th Generation Intel® Xeon® CPU ◆ Up to 32GB DDR4 ECC RAM ◆ Conduction-Cooled Option

## Description

The AcroExpress® VPX6600 is a high performance 3U OpenVPX™ single board computer based on the 6th Generation Skylake Intel® Xeon® processor and PCH. Designed for COTS applications this SBC utilizes the Intel C230 series PCH chipset for extensive I/O support. Heat is managed with a fully integrated heatsink for advanced cooling management. The VPX6600 doesn't consume I/O space and offers specialized I/O on P2.

### Intel 6th Generation

Whether you're looking for a tech refresh to update your legacy systems or starting a new application, Intel processors deliver significant performance advancements such as: enhanced microarchitecture, integrated graphics, and expanded memory performance with up to 32GB of high-bandwidth DDR4 memory and ECC memory controllers. This board is designed and manufactured to meet VITA 46.0 and has at least a 7-year life expectancy.

Cutting-edge technology features programmable power limits, allowing the user to "dial-down" the maximum power consumption of the CPU in systems where power is a concern.

The VPX6600 also takes advantage of Intel Advanced Vector Extensions 2.0 for enhanced performance on floating point-intensive applications and Hyper-Threading Technology that enables each core to use two software threads for more efficient use of the CPU.

### Memory

Supports either one or two DDR4 ECC SODIMMs, for a total of up to 32GB removable memory. The SODIMMs are firmly attached to the module with screws for easy replacement and surrounded by heat sink material to provide a mechanically and thermally robust mechanism. These processors feature a M.2 Flash storage site perfect for solid-state storage application.

### Operating System Software

The VPX6600 is supported for use with Microsoft Windows® 7/8/10, VxWorks™ and Linux®.

### Extensive Support

Acromag has more than 60 years of experience working with defense, aerospace, scientific, and industrial applications. We are committed to providing embedded computing solutions with the best long-term value in the industry.

These boards are designed and manufactured in the USA with a 2-year warranty and a life expectancy of at least 7 years.

## Key Features & Benefits

- 6th Generation Intel Xeon:
  - Quad Core Xeon E3-1505M V5 (47W)
- Up to -40 to 85°C extended operating range
- Programmable CPU power for heat sensitive applications
- Intel C230 series CM236 PCH chipset
- Up to 32GB of high-speed DDR4 memory with SODIMM lock-down mechanism (permits user removal or upgrades)
- Front panel I/O includes (air-cooled version):
  - dual USB 3.0 ports
  - mini-display port
- Backplane I/O includes:
  - PCIe x4 data plane
  - PCIe x4 expansion plane
  - PCIe x4 or x4 SATA III expansion plane
  - 1 Gb Ethernet 1000Base-T port
  - 2 Gb Ethernet 1000Base-BX ports
  - 2 RS-232/422/485 ports
  - 2 USB 3.0 ports
  - 2 USB 2.0 ports
  - 2 DisplayPort 1.2 ports
  - 2 SATA III ports
  - Audio: analog stereo line in and line out
- Power-on self-test (POST) code LCD display

ISO9001
AS9100
MADE IN USA

Acromag® THE LEADER IN INDUSTRIAL I/O

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# VPX Processor Boards

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## VPX6600 3U AcroExpress® VPX CPU Air or Conduction-Cooled

### Performance Specifications

#### AcroExpress Processor & Memory

**Processor**
Intel Xeon processor.
(6th generation, codename Skylake). The CPU allows programming a lower power limit in the BIOS setup allowing use in applications where less power is available or heat removal is an issue.

E3-1505M V5: 2.8GHz, quad core, 8Mb cache, 47W.

**Chipset**
Intel C230 series CM236 PCH chipset.

**Memory**
32GB of 2133 DDR4 ECC memory.

**Flash Storage**
M.2 site available for onboard Flash.

#### Software Support

Drivers for Microsoft® Windows® 7/8/10, VXWorks and Linux™ are available for download from their respective providers.

#### Fabric Port

The VPX6600 provides 3 ports of x4 Gen 3 PCIe where 1-x4 port is used on the Data Plane and 2-x4 ports are used on the Expansion Plane. All ports fully comply with the PCIe specifications as defined by PCI-SIG and are routed to the P1 backplane connector as defined by VITA 46.4. The Data Plane and Expansion Plane interfaces can be used to interconnect multiple VPX6600's or to provide PMC/XMC support using the VPX4810 or VPX4814.

#### Bus Compliance

VITA 65 module profile
MOD3-PAY-1F2F2U-16.2.2-4.

VITA 46.0 / 46.4 / 46.6.

VITA 48.1 / 48.2.

#### Form Factor

3U VPX 1" pitch (VITA 48.1).

#### Environmental

**Operating temperature**
Air-cooled: 0 to 70°C *.

Conduction-cooled: -40 to 85°C.

* w/ 300 lfm airflow; depends on application - see manual for details

**Storage temperature**
-40 to 85°C.

**Relative humidity**
5% to 95% at 60°C non-condensing.

**Shock**
50g peak-to-peak, 11ms duration, MIL-STD-202G Method 213B.

**Vibration**
11.96 grms, 50-20,000 Hz, each axis, MIL-STD-202G Method 214A.

**Power Inputs from backplane:**
5V: 10.4A typical, 14.4A maximum.
3.3V: 1.3A typical.

### Ordering Information

VPX6600-LF
3U VPX carrier card, CPU module Intel E3-1505M, air-cooled.

VPX6600-CC-LF
3U VPX carrier card, CPU module Intel E3-1505M, conduction-cooled.

*Call factory for battery-less operation and other options.*

#### Accessories

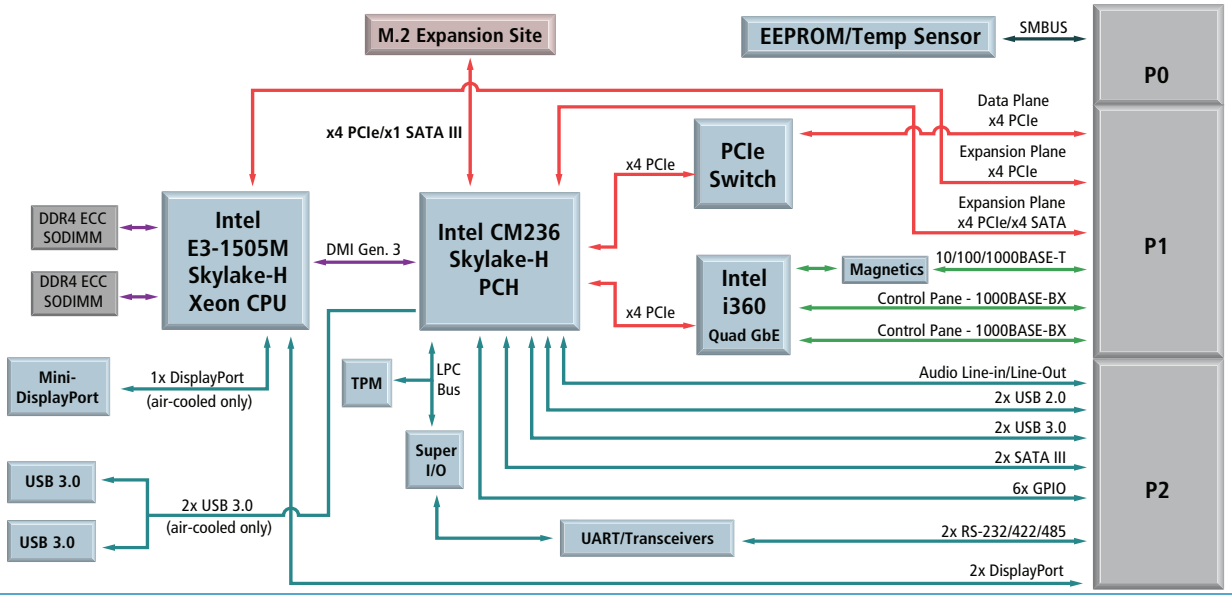
VPX6600-RTM-LF
3U VPX rear transition module for conduction-cooled boards.

#### Software Development Tools

VPX6600-BSP-VXW
Board support package includes driver and integration directions for VxWorks.

#### Related Products

VPX Carrier Cards




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