

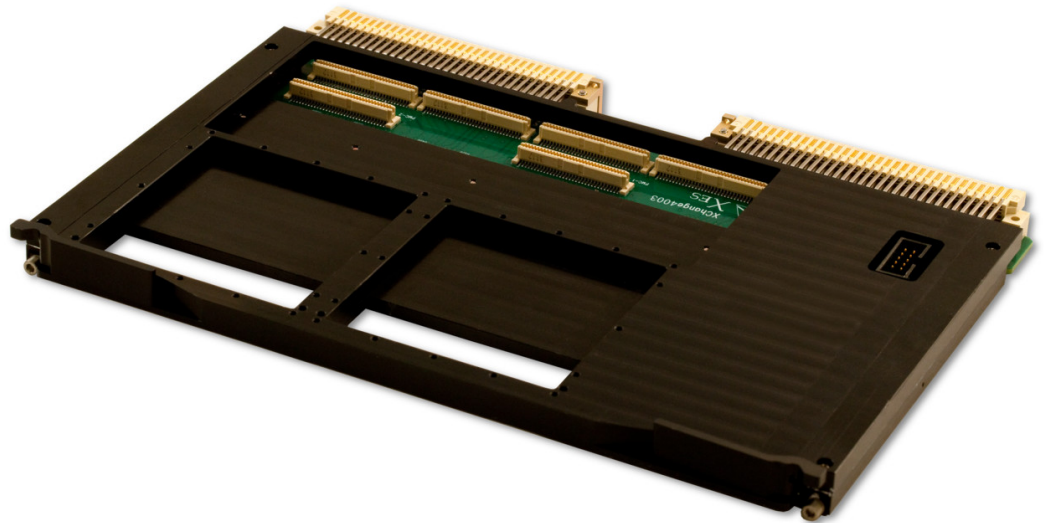
XChange4003

End of Life

Conduction- or Air-Cooled 6U VME XMC/PMC Carrier Card

Please contact X-ES Sales

- ▶ 6U VME64x, supporting VME64, VME64x, and 2eSST
- ▶ Two XMC or PMC sites
- ▶ Conduction or air cooling
- ▶ 32-bit local PCI bus
- ▶ 33/66 MHz PCI operation
- ▶ x2 PCI Express Gen2 to XMC sites
- ▶ 64 pins of P14 I/O from each XMC/PMC site to P2 and P0
- ▶ FPGA-based VME interface



XChange4003

The XChange4003 is a versatile conduction- or air-cooled 6U VME64x dual-XMC/PMC carrier card. With PCI and PCIe support between the two XMC/PMC slots and the VME64x 2eSST bridge, the XChange4003 is ideal for applications requiring the flexibility that XMC/PMC modules offer. The XChange4003 supports XMCs operating in both endpoint and root complex modes.

The XChange4003 implements its VME64x interface using an FPGA device for maximum product longevity and field upgradeability. The XChange4003 includes a local +3.3 V power supply, so backplane +3.3 V is not required. 64 pins of P14 I/O from each XMC/PMC site are routed to the P2 and P0 connectors per P4V0-64 and P4V2-64ac (ANSI/VITA 35-2000).

X-ES

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VME

- VME64 (ANSI/VITA 1-1994 R2002)
- VME64x (ANSI/VITA 1.1-1997 R2003)
- 2eSST (ANSI/VITA 1.5-2003)
- FPGA-based bridge implementation

XMC/PMC I/O

- 64 pins of P14 I/O from each XMC/PMC site to P2 and P0 per P4V0-64 and P4V2-64ac (ANSI/VITA 35-2000)

PCI

- 32-bit, 33/66 MHz conventional PCI to XMC/PMC sites

PCIe

- x1 PCIe to PCIe-to-PCI bridge
- x2 PCIe to each XMC site (root complex or endpoint modes)

Physical Characteristics

- 6U VME form factor
- Dimensions: 233.35 mm x 160 mm
- 10 mm mezzanine stacking height

Environmental Requirements

Contact factory for appropriate board configuration based on environmental requirements.

- Supported ruggedization levels (see chart below): 1, 3, 5
- Conformal coating available as an ordering option

Power Requirements

- 5 V, 1.15 A, 5.75 W

Ruggedization Level	Level 1	Level 3	Level 5
Cooling Method	Standard Air-Cooled	Rugged Air-Cooled	Conduction-Cooled
Operating Temperature	0 to +55°C ambient †	-40 to +70°C ambient †	-40 to +85°C (board rail surface)
Storage Temperature	-40 to +85°C ambient	-55 to +105°C ambient	-55 to +105°C (maximum)
Vibration	0.002 g ² /Hz (maximum), 5 to 2000 Hz	0.04 g ² /Hz (maximum), 5 to 2000 Hz	0.1 g ² /Hz (maximum), 5 to 2000 Hz
Shock	20 g, 11 ms sawtooth	30 g, 11 ms sawtooth	40 g, 11 ms sawtooth
Humidity	Up to 95% non-condensing	Up to 95% non-condensing	Up to 95% non-condensing

† Contact factory for airflow rate details.

