ADLINK
LEADING EDGE COMPUTING

3U Compact PCI Serial MXM Carrier

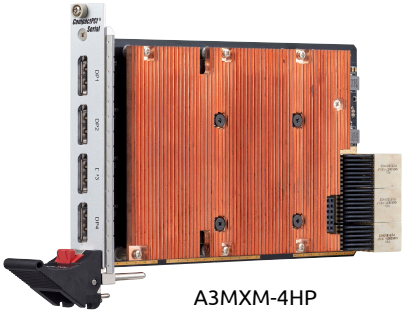
cPCI-A3MXM

Datasheet

Preliminary



A3MXM-8HP



A3MXM-4HP

Features

- Follow PICMG® CompactPCI® Serial design guide
- CompactPCI® Serial, 3U 4HP/8HP (100mm x 160mm)
- Compatible with MXM Type A (82 mm x 70 mm) or Type B (82 mm x 105 mm)
- Support NVIDIA A1000 with 2048 CUDA® cores, 16 RT Cores and 64 Tensor Cores or NVIDIA RTX™ A4500 with 5888 CUDA® cores, 46 RT Cores and 184 Tensor Cores
- 4x DisplayPort 1.4, support 4K (3840x2160) resolution
- Operating temperature: -40°C to +70°C
- Designed to meet EN50155 standards

Specifications

Interface	PCIE	1x PCIe Gen 4.0 x 8 from P1 & P2 (with Gen 3.0 connector now)
	MXM	Type A (MXM-A1000) & Type B (MXM-A4500) Support Max 120W Support PCIe Gen 4.0 x 8
	Front Panel	4 Display port to rear P3 & P5
	Form Factor	4x Display Port 1.4, support 4K (3840x2160) resolution With MXM-A1000 • 3U 4HP CPCI-S.0 R2.0 standard with locking handle and two front panel securing screws With MXM A4500 80W • 3U 8HP CPCI-S.0 R2.0 standard with locking handle and two front panel securing screws with BTB power board
MTBF & Reliability	MTBF	15.1 Years at minimum
Power	Power Consumption	cPCI-A3MXM/A1000 sku Max. 60W cPCI-A3MXM/A4500 sku Max. 75W
	Power board	1. As DB for more power with 8HP for MXM-A4500 configuration for heat sink version, 12V input from P1.

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Specifications

Mechanical	Material	Front panel: Material: AL6063 T5. Sandblast #150. Anodizing Finish of sides & inside: chromate Heatsink: aluminum and copper Material compliant to UNIFE 2020-10-14 Railway Industry Substance List The front panel screws shall be Torx type or cross type
	PCB Coating	Option PCBs conformal coated both sides – type HumiSeal 1B73 Coating (AR) Acrylic.
	Dimensions	With MXM-A1000 3U 1-slot 4HP 100 mm x 160 mm (L x W) x 20.32 mm (air cooling type) With MXM-A4500 3U 1-slot 8HP 100 mm x 160 mm (L x W) x 40.64 mm (air cooling type)
	Net Weight	4HP: 0.6 kg, 8HP: 0.7 kg (including heatsink)
OS	Operating System	Windows 10 UBUNTU 22.X
Environment & Certification	Operating Temperature	With Heat sink version • 4HP: -40°C ~70°C with airflow, supports display out only. • 8HP: -40°C ~ 70°C, EN50155 OT3 Class +ST1 (+85C for 10mins) when provided with airflow (for heat sink solution) • GPU card will be screen out by ETT. Without heater support
	Storage Temperature	-40°C ~ 95°C
	Humidity operating	5% to 95% relative humidity (non-condensing)
	Humidity storage	5% to 95% relative humidity (non-condensing)
	EMC (EMI+EMS)	EN50155 2021 EMC: • EN50121-3-2 (radiated and conducted emission + immunity) • EN61000-6-4 / 6-2 (Cover: EN55032 / EN55035 Class A) • Medical electrical standards component level IEC 60601-02 (EMC) and IEC 60601-01 (safety) • ESD: 8KV by contact, 15KV by air • UKCA = CE • FCC Part 15B CLASS A
Environment & Certification	Environmental	RoHS 2.0 & REACH For Rail • Shock: EN 50155 2021 cat 1 class b • Altitude: -300M to ~ 4000M
Safety	Fire Protection	Compliant to EN45545-2:2013+A1:2015 (HL 1-3) EL9 for PCB (R24 / R25)
	Rolling stock	Compliant to BS EN 50155:2021
	CE	Supported

Ordering Information

cPCI-A3MXM	cPCI-A3MXM/A1000/4HP
	cPCI-A3MXM/A4500/8HP
Recommended CPU Board	
cPCI-A3525	3U CompactPCI Serial 9th Gen Intel Xeon®/Core™ i7 Processor Blade
CPCI-A3535	3U CompactPCI Serial Intel® Xeon® W Processor Blade

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