

► 6U Conduction-Cooled Mechanical Housing Assembly

The 6U Conduction-Cooled Mechanical Housing Assembly (6U CC MHA) is a versatile, rugged enclosure for 6U Single Board Computer (SBC) based embedded systems, as used in varied Airborne, Vehicular and Naval applications. The MHA can be configured for use with standard 6U CompactPCI, VME, VPX or other custom backplanes.

The 6U CC MHA has dual-redundant hot-swap power supplies, connected in a load-sharing topology, capable of operating from a wide AC input range and supplying standard DC output rails. Onboard power line filtering is implemented to limit susceptibility to EMI and RFI.

The modular rear-I/O connector plate can easily be customised to suit any end application. Resilience to shock and vibration can be enhanced using external shockmounts.

The 6U CC MHA is designed for highest levels of resilience to mechanical shock, vibration, temperature, dust and salt fog.

Features

- Support for various 6U backplanes (CompactPCI, VME, VPX, custom)
- Two to eight 6U CompactPCI, VME or VPX card slots in the standard configuration (expandable)
- Rugged, lightweight aluminium construction
- Optional dual-redundant power supplies
- Optional external shockmounts
- Conduction cooling
- Optional forced-air or chilled water cooling
- Rugged and reliable military circular connectors



Figure 1 : 6U CC MHA with open lid



Figure 2 : 6U CC MHA with fan cooling

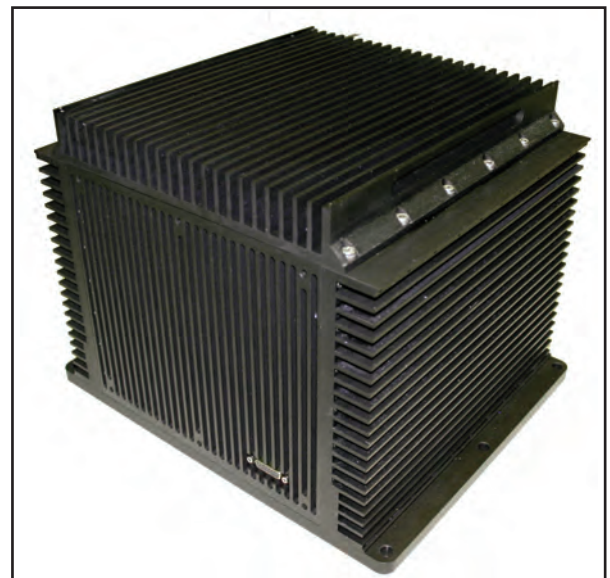


Figure 3 : 6U CC MHA without fan cooling

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Specifications							
Mechanical Construction	Aluminium construction Freestanding (with or without shockmounts) Rear mounted handles						
Card Space	Inner card cage Two to eight 6U card slot backplane Support for hot swap Vertical card orientation Conduction-cooled cards						
Thermal Management	Conduction cooling via finned side panels Optional forced-air cooling with fans						
Backplane Type	Standard (CompactPCI, VME, VPX) or other 6U options						
Power Supply	Dual-redundant hot swap power supplies (application specific rating) EMI/RFI power line filtering						
I/O Interface	Fully customisable rear I/O area 210 mm x 235 mm (height x width)						
Switches and Indicators	Optional front and rear panel switches and indicators : ► Power Switch ► Battleshort Switch ► BIT Status Indicators						
Surface Finish	Black anodised aluminium						
IP Rating	IP-65 (IEC-60529)						
Acoustic Noise	0 dB without fan cooling 34 dB with fan cooling						
Maximum Power Dissipation	Baseplate Temperature	20 C	30 C	40 C	50 C	60 C	70 C
	Power Dissipation without fan cooling	360 W	320 W	270 W	220 W	170 W	120 W
	Power Dissipation with fan cooling	430 W	370 W	310 W	240 W	180 W	120 W

Characteristics		
Physical	Dimensions (height x width x depth)	Mass
Conduction-Cooled	260 mm x 350 mm x 340 mm	17,0 kg ± 1,0 kg
Air Cooled	260 mm x 350 mm x 440 mm	17,5 kg ± 1,0 kg

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Environmental Specifications		
Grade	Industrial	Ruggedised
Temperature - Operating - Storage	-15 C to +75 C -50 C to +85 C	-40 C to +85 C -60 C to +125 C
Relative Humidity	0% to 100%	0% to 100%
Shock	60 g for 5 ms, ½ sine 30 g for 10 ms, ½ sine	60 g for 5 ms, ½ sine 30 g for 10 ms, ½ sine
	i.a.w. MIL-STD-810F Method 516.5 Procedure I	
Vibration	5 g (peak) 10 Hz to 100 Hz 0,1 g²/Hz at 15 Hz to 2 kHz	5 g (peak) 10 Hz to 100 Hz 0,1 g²/Hz at 15 Hz to 2 kHz
	i.a.w. MIL-STD-810F Method 516.5 Procedure II	
EMC	RE, CE, RS, CS i.a.w. MIL-STD-461C for military equipment	

Part Designations				
Part Designation	Grade	Cooling	Formfactor	Backplane
CCII/MHA/6UAC/CPCI/xy/IND	Industrial	Forced-air cooled	6U	CompactPCI
CCII/MHA/6UCC/CPCI/xy/IND	Industrial	Conduction-cooled	6U	CompactPCI
CCII/MHA/6UAC/CPCI/xy/RGD	Ruggedised	Forced-air cooled	6U	CompactPCI
CCII/MHA/6UCC/CPCI/xy/RGD	Ruggedised	Conduction-cooled	6U	CompactPCI
CCII/MHA/6UAC/VME/xy/IND	Industrial	Forced-air cooled	6U	VMEbus
CCII/MHA/6UCC/VME/xy/IND	Industrial	Conduction-cooled	6U	VMEbus
CCII/MHA/6UAC/VME/xy/RGD	Ruggedised	Forced-air cooled	6U	VMEbus
CCII/MHA/6UCC/VME/xy/RGD	Ruggedised	Conduction-cooled	6U	VMEbus
CCII/MHA/6UAC/VPX/xy/IND	Industrial	Forced-air cooled	6U	VPX
CCII/MHA/6UCC/VPX/xy/IND	Industrial	Conduction-cooled	6U	VPX
CCII/MHA/6UAC/VPX/xy/RGD	Ruggedised	Forced-air cooled	6U	VPX
CCII/MHA/6UCC/VPX/xy/RGD	Ruggedised	Conduction-cooled	6U	VPX

- [x] is one of 1 or 2, denoting the number of power supplies
[y] is one of 2, 3, 4, 5, 6, 7 or 8, denoting the number of card slots

For example CCII/MHA/6UAC/CPCI/28/IND is an industrial grade air cooled 6U mechanical housing assembly with a CompactPCI backplane providing 2 power supplies and 8 card slots