

FEATURES

- 6-slot 3U CompactPCI (cPCI) chassis (2x 3-slot 3U sections side-by-side)
- Custom 6-slot cPCI backplane
- 2.95" high x 13.05" deep x 17.5" wide
- Side-to-rear cooling using 4 high performance fans with fan speed control
- Extreme cooling: >20 CFM per slot with very high pressure 3U cPCI payload
- AC input: 115/230VAC, 47-63Hz
- 630 W embedded AC power supply
- Embedded router card
- Embedded chassis management module with Ethernet, SNMP, and custom firmware
- Front panel I/O connectors:
 - 12 Gigabit Ethernet ports
 - 5 USB 2.0 ports
 - Status LEDs
 - Reset Switch
 - ESD jack
- Custom hot swap circuit on backplane with switch and LED for module that does not support cPCI Hot Swap
- Rear panel I/O:
 - 2 Serial RS-232 ports



CHASSIS SOLUTION 78-818

GROUND MOBILE 3U COMPACTPCI CHASSIS



MARKET

Military

APPLICATION

Ground mobile communications

CHALLENGE

Package a < 2U high rack mount server with extensive processing, I/O, storage, monitoring, and significant thermal challenges for cooling the 3U cPCI payload.

OVERVIEW

This custom enclosure from Atrenne, Controls Defense Solutions acts as a high power air-cooled server. Designed to cool 6-slots of 3U cPCI payload cards, this chassis uses side-to-rear cooling through four high performance fans. The chassis includes an embedded chassis management module and an embedded router card. The custom backplane includes hot swap circuitry for a payload card that does not support hot swap.

TABLE 1: SPECIFICATIONS

PHYSICAL	
Width	17.47"
Height	2.95"
Depth	13.0"
Weight	16.8 lbs
CONSTRUCTION	
Extrusions	6063-T6 aluminum
Top & Bottom	0.080" aluminum, 5052-H32
Card Cage	0.063" aluminum, 5052-H32
Power Supply	630W AC input, 115 V, 60 Hz
Card Guides	Molded plastic, Noryl N190X black , UL94-V0
Tapped Strips	Carbon steel bar stock with zinc plating and supplementary chromate treatment
ESD Ground Clips	Beryllium copper, alloy C17400, 1/2 HT, with bright tin plating/ML-T-10727
Fan Tray	4 high performance 60 MM fans

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SPECIFICATIONS (continued from previous page)

ENVIRONMENTAL	
Operating Temperature	-7° C to +43° C
Storage Temperature	-37° C to +71° C
Altitude	Operating altitude: 10,000 feet per MIL-STD-810F, Method 500.4, Procedure II Storage altitude: 40,000 feet per MIL-STD-810F, Method 500.4, Procedure I.
Humidity	Relative humidity up to 95% non-condensing at all ambient air temperatures to 90° F, and low relative humidity of 10% at a temperature of 145° F for (10) - 24 hour cycles
Cooling	>20 CFM per slot with very high pressure 3U cPCI payload
Salt Fog	MIL-STD-810F section 509.4
Sand and Dust	MIL-STD-810F, Method 510.4, Procedure III (Dust)
Fungal Control	MIL-STD-810F, Method 508.5
Shock	20 g for 11 ms
Vibration	MIL-STD-810F, Method 514.5, Procedure I, (Ground mobile) Operational, Category 20, Figure 514.5C-3 with tailoring to delete all frequencies above 200 Hz, for two hours per axis
EMC	FCC 47 CFR Part 15, class A Electromagnetic Radiation requirements
POWER/ELECTRICAL	
AC Input	4.6 A AC Input, 115-230 VAC, 50-60Hz, 15 A Breaker
Backplane Connectors	6-slot 3U cPCI custom backplane
Connector Pitch	0.8"

WARRANTY

This product has a one year warranty.

CONTACT INFORMATION

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