NOVA INTEGRATION SOLUTIONS

4100 CLASS

Mil-Grade Rackmount Chassis

MODEL 4104

Military Grade 19" Rackmount 4U Server Chassis

Model 4104 is a chameleon among rackmount chassis in that it can be configured with an active motherboard or passive backplane platform. Further, the 4104 has been tested and passed MIL-STD-810F Shock and Vibration, and MIL-STD-461E EMC. The hallmarks of the 41xx series, recognized by the U.S. Dept. of Defense, are its torsional strength and resilience to shock and vibration energy. As with its taller sibling, Model 4107 (used by the U.S. Navy on the OASIS LSRS Radar System installed aboard the P-3 Orion), the 4104 was selected by the DOD for service on a critical program. The U.S. Air Force chose the 4104 as its preferred chassis to house a redundant computer that controls the C-130's refueling system.

The 4104's superior torsional strength is a credit to NOVA's proprietary extrusions from which the outer chassis is made. The internal chassis, made from aluminum 5052-H32 and mechanically suspended using multi-axis mounts that attenuate shock and vibration energy, holds the selected hardware platform, drives, and power supply.

High-CFM fans arranged in push-pull LRU trays provide aggressive airflow across system boards and drives at all times, and whose speed can be monitored and controlled by NOVA's System Environmental Monitor (SEM). Air filters located behind EMC compliant mesh inserts are easily accessible and quick to service or replace. Model 4104 is configurable to accommodate a variety of passive backplane types or motherboards; rear panel MIL circular connectors may replace COTS connectors.

For more information visit our web site: www.novaintegration.com

- **NIS proprietary extrusion design results in zero torsional flex**
- **Mechanically suspended inner chassis isolated from external shock and vibration energy**
- **Tested and passed the following Military specifications:**
  MIL-STD-810F Shock, Method 516.5
  MIL-STD-810F Vibration, Method 514.5
  MIL-STD-461E EMI/EMC
  MIL-STD-810F Fungus, Method 508.4, Procedure I
- **Supports VME64x, VXS, VPX/OpenVPX, and CompactPCI backplane architectures and Server and ATX motherboard platforms**
- **Single, dual and redundant computer configurations are supported**
- **Peripheral Bay supports 5.25" HH, 3.5" and removable secure drive system**
- **85-264 VAC @ 47-63 Hz input power standard**
- **Hot swap/N+1, 18-36 VDC or 440Hz aircraft power supply options**

AS 9100
BUREAU VERITAS
Certification
Certificate No: US008267-1

NOVA Integration Solutions | 19 East 17th Street | Saint Cloud, FL 34769 | 407.556.3934 | www.novaintegration.com

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Environmental Characteristics

Temperature, operating	-20°C to +55°C
Temperature, non-operating	-40°C to +70°C
Humidity	0% to 95%, non-condensing
Altitude, operating	-1,000 ft. to 15,000 ft.
Altitude, non-operating	-1,000 ft. to 40,000 ft.
Vibration	MIL-STD-810F, Method 514.5, Procedure I
Shock	MIL-STD-810F, Method 516.5, Procedures I & VI
EMI/EMC	MIL-STD-461E, CE101, CE102, CS101, CS114, RE101, RE102, RS102, & RS103
ESD	MIL-STD-1686A
Explosive Atmosphere	MIL-STD-810F, Method 506.4
Sand and Dust	Highly Resiliant

Physical Characteristics

Dimensions	4U (6.97") H x 19" W x 22" to 25" D (typical)
Weight	50 lbs. (typical for 25" model)
Mounting	Rackmount (standard) Tabletop (optional)

Electrical Characteristics

Input Power (standard)	85-264 VAC @ 47-63 Hz
Input Power (optional)	18-36 VDC 110VAC / 220VAC @ 47-440 Hz
AC Current, 650W output	6.7A @ 115VAC 3.4A @ 230VAC
AC Inrush Current, 650W output	30A @ 115VAC 50A @ 230VAC
EMI Filtering	MIL-STD-461 compliant, military grade input power EMI Filter standard

Hardware Platforms

Eurocard Backplane	Up to 7-slot, front loading subrack
PCIe Backplane	PICMG 1.3 passive backplane, up to 14slot
Motherboard	ATX, Server class, Mini-ATX, ITX or custom
Peripherals Bay	Up to 4ea 5.25" HD, SSD, or DVD drive(s)
Customization	Customer definable rear I/O panel. Customer definable peripheral bay. Power system defined per configuration.

Common Specifications

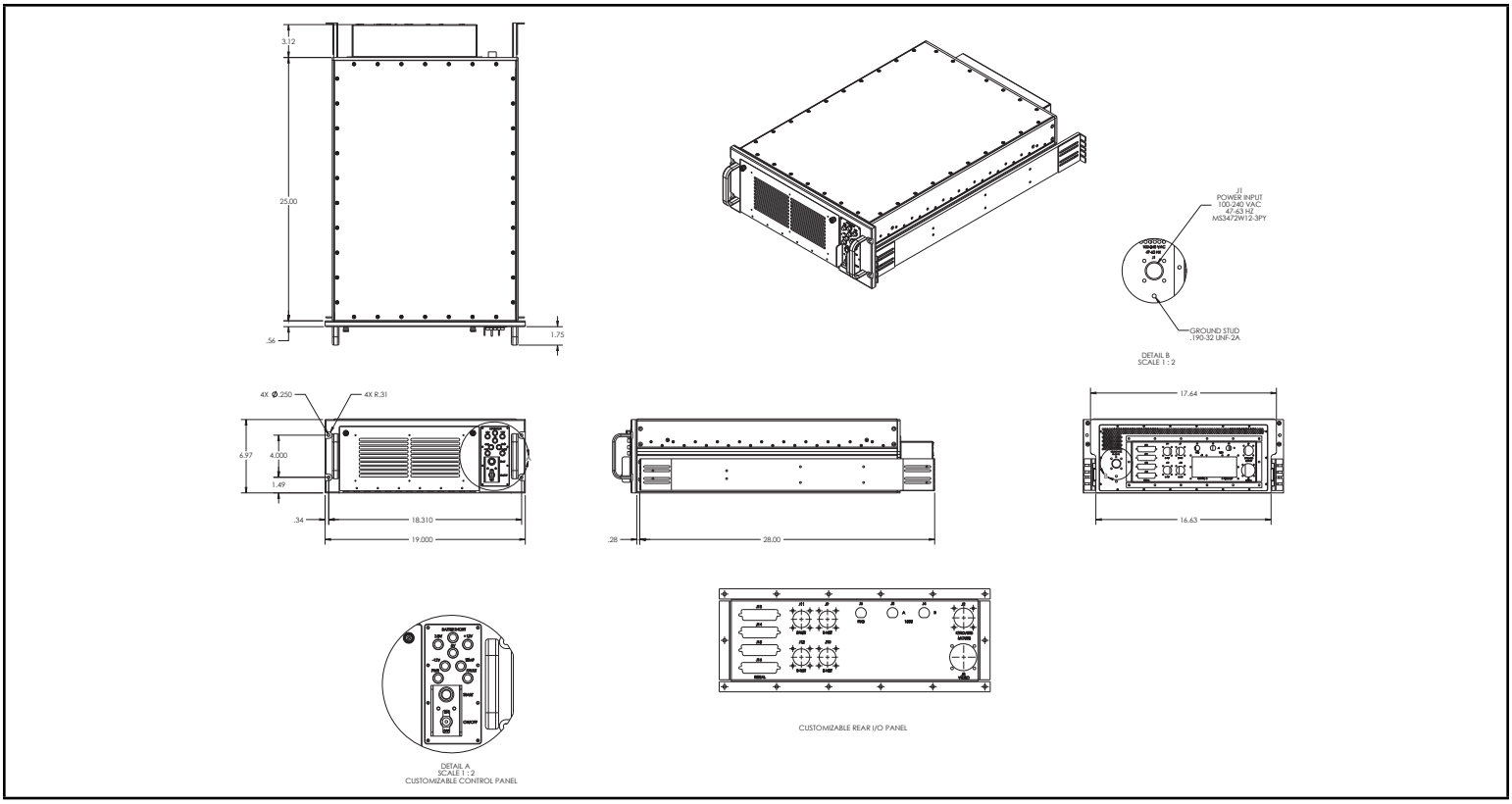
Front/Rear Bezel	Machined aluminum alloy #6061-T6
Chassis Side Panel Extrusion	Aluminum alloy #6061-T6
Internal Chassis	Aluminum alloy #5052-H32
Isolation Mounts	Suspends inner chassis from outer chassis (configuration dependant)
Rackmount	Designed to meet EIA-310-D
User Controls	Circuit Breaker (MIL grade) Start & Reset (push button) Customer definable and configuration dependant

Ordering Table

95-4104-00225-00x	Rackmount, ATX motherboard, 85-264VAC @ 47-63Hz, customized real panel
95-4104-07427-00x	Rackmount, 7 slot 6U VME64x backplane, no RTM, 85-264VAC @ 47-440Hz, customized rear panel
95-4104-06727-00x	Rackmount, 6slot PICMG backplane, 85-264VAC @ 47-440Hz, customized rear panel

Contact factory for additional configurations and options

Outline Drawing



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