

MODEL 4107

MILITARY GRADE 19" RACKMOUNT 7U SERVER CHASSIS



The 4107 chassis was selected by the U.S. Navy for the technology refresh of the Over-the-Horizon Airborne Sensor Information System (OASIS) system deployed aboard the P-3C Orion aircraft.

The chassis' exceptional torsional strength is attributed to NOVA's proprietary, heavy-duty, wrought aluminum, overlapping extrusion construction. In fact, the 41xx series uses the same extrusions, which also attribute to its MIL-STD-461 EMI/EMC characteristics. An internal aluminum chassis resides inside the main chassis, and is mechanically suspended using multi-axis mounts that attenuate externally transmitted shock and vibration energy, resulting in meeting MIL-STD-810 shock and vibration criteria.

The 4107 features an aggressive yet acoustically quiet forced-air convective cooling system arranged in a push-pull configuration that blows across up to 18 internal system boards. The intake fan tray is also an LRU design with a 5-minute MTTR. Air filters located behind EMC mesh inserts are easily accessible and quick to service/replace.

Airflow, internal temperature, bus activity, input and output power and other sensitive system points are monitored or controlled by NOVA's microprocessor and Ethernet port-based System Environmental Monitor (SEM).

Available in variety of passive and active board platforms, the 4107 also features a highly customizable rear panel that accommodates a variety of MIL circular and/or industrial 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



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 Resilient

PHYSICAL CHARACTERISTICS

Dimensions	7U (12.25") H x 19" W x 24" D (typical)
Weight	65 lbs. (typical for 24" 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
Power Supply Form Factor	1kW, Hard Mount +3.3V, +5W, +/-12V Plug in cPCI, VME or VPX compliant PSU
EMI Filtering	MIL-STD-461 compliant, military grade input power EMI Filter standard

HARDWARE PLATFORMS

Eurocard Backplane	Up to 18-slot, top 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 8ea 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

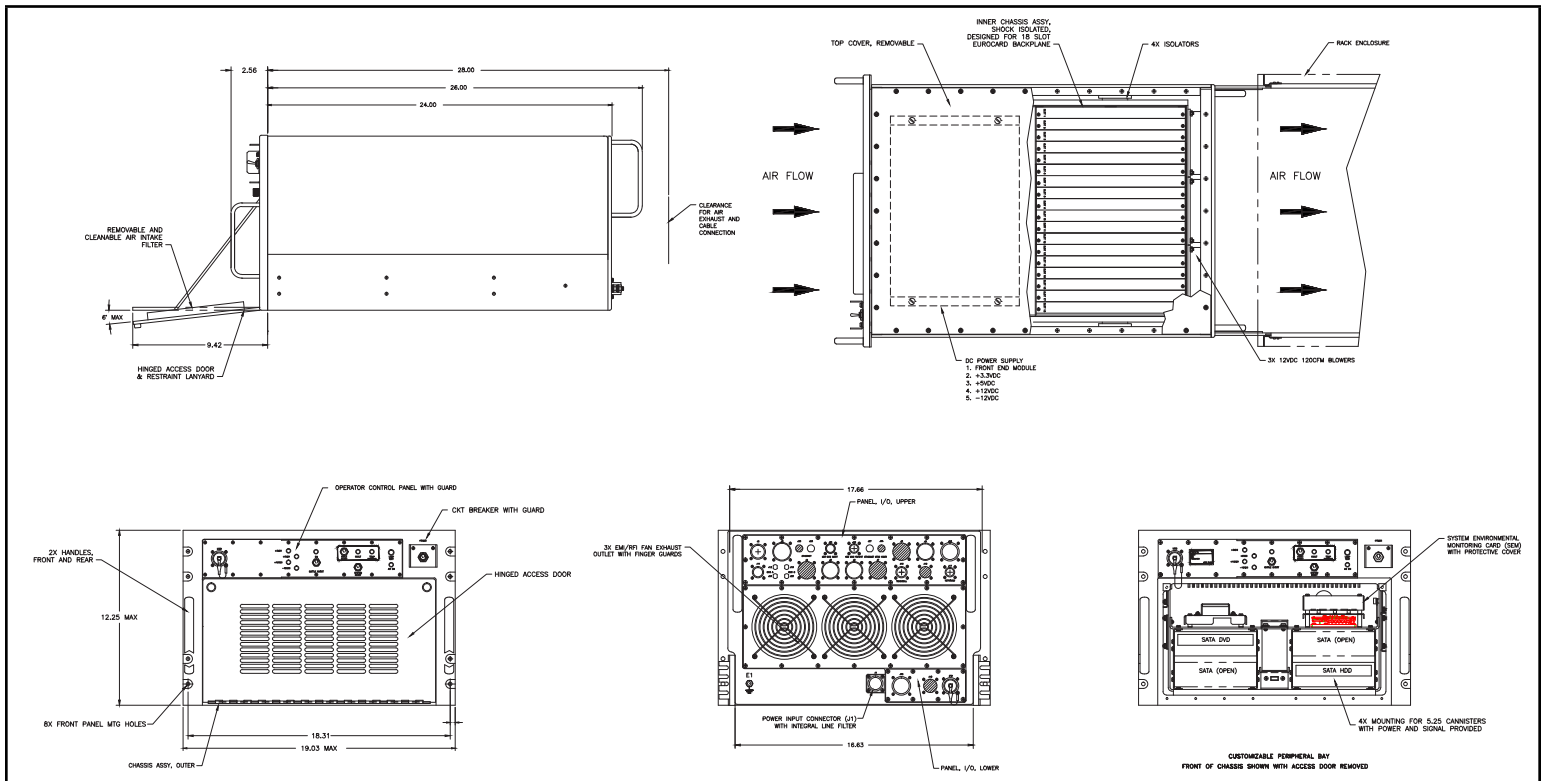
Front/Rear Bezel	Machined aluminum alloy #6061-T6
Chassis Side Panel Extrusion	Aluminum alloy #6061-T6
Internal Chassis	Aluminum alloy #5052-H32
Isolation Mounts	Suspends inner chassis from outer chassis (configuration dependant)
Rackmount	Designed to meet EIA-310-D Circuit Breaker (MIL grade)
User Controls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

ORDERING TABLE

95-4107-00225-00x	Rackmount, ATX motherboard, 85-264VAC @ 47-63Hz, customized rear panel
95-4107-18427-00x	Rackmount, 18 slot 6U VME64x backplane, no RTM, 85-264VAC @ 47-440Hz, customized rear panel
95-4107-14727-00x	Rackmount, 14 slot PICMG backplane, 85-264VAC @ 47-440Hz, customized rear panel

Contact factory for additional configurations and options

OUTLINE DRAWING



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