

MODEL 3245**MILITARY GRADE****1/2 LONG ATR CHASSIS****3U VPX / 10-SLOT**

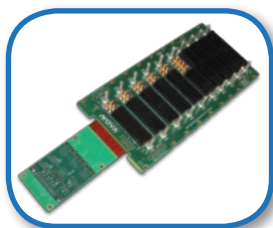
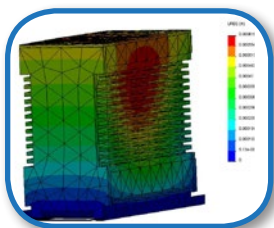
The 3000 Series consists of a family of standard products and custom ATR reference designs also referred to as a chassis or enclosure, in support of highly rugged and MIL-spec applications utilized by the defense and aerospace markets. The Series provides a full set of packaging features ideally suited to meet the high performance demands of ground-based applications or flight vehicles that operate at high altitudes.

The 3200 Class is a family of "hybrid" cooled enclosures consisting of forced air-cooling over conduction cooled plug-in modules. This method of cooling is superior to convection or conduction cooling alone and allows the enclosure to remain sealed.

The Model 3245 is a fully military grade 1/2 Long ATR Chassis which utilizes a 10-slot VPX backplane (or similar eurocard based 3U backplane), MIL-STD-461 compliant EMI filter, VPX capable power system, and an optional System Environmental Monitor (SEM).

NIS is a vertically integrated advanced packaging company and is well suited to handle the challenges of ATR design for UAV, Fighter Jet, and similar aircraft applications. Nearly all facets of design, simulation, manufacturing and test including mechanical/electrical design, thermal/structural simulation, EMI filter design, PSU design, backplane design, I/O panel design, system monitoring, shock isolation, metal fabrication, and more are well within our capabilities.

- **NOVA's proprietary, overlapping extrusion design results in zero torsional flex**
- **Forced air-cooling over conduction cooled plug-in modules**
- **Designed and simulated to survive high altitude and temperature applications**
- **RTCA/DO-160E temperature, altitude, humidity, shock, vibration, explosive atmosphere, salt spray and sand / dust**
- **MIL-STD-461E EMI/EMC**
- **Supports 3U VPX/OpenVPX, VME64x and CompactPCI eurocard backplanes**
- **10 Slot custom VPX backplane on 0.8" and 1.0" pitch**
- **Standard 85-264 VAC @ 47-63 Hz input**
- **Thermal and structural simulations have been completed validating all designs**
- **System Environmental Monitor (SEM) available as an option**



ENVIRONMENTAL CHARACTERISTICS

Temperature, operating	-20°C to +55°C RTCA/DO-160E, Category A4
Temperature, non-operating	-40°C to +71°C RTCA/DO-160E, Category A4
Temperature Variation	RTCA/DO-160E, Paragraph 5.3.1, Category A
Humidity	0% to 95%, non-condensing RTCA/DO-160E, Paragraph 6.3.1
Altitude, operating	-1,000 ft. to 15,000 ft. RTCA/DO-160E, Paragraph 4.6.1, Category A
Altitude, non-operating	-1,000 ft. to 60,000 ft. RTCA/DO-160E, Paragraph 4.6.1
Decompression	65,000 ft. tested per RTCA/DO-160E, Paragraph 4.6.2
Vibration, Flight Functional	3.19 Grms, 20-2000Hz, 15 Min per axis
Vibration, Flight Endurance	3.8 Grms, 20-2000Hz, 1 Hr.
Shock	20 G, 11ms saw-tooth MIL-STD-810F, Method 516.5, Procedures I & VI
EMI/EMC	MIL-STD-461E, CE102*, CS101, CS114, CS115, CS116, RE102* & RS103 (*with tailoring)
Electrical Bonding	MIL-HDBK-1857
ESD	MIL-STD-1686A

Explosive Atmosphere

RTCA/DO-160E, Paragraph 9.7.2, Category E

Salt Spray

RTCA/DO-160E, Paragraph 14.2, Category S

Sand and Dust

RTCA/DO-160E, Paragraph 12.3, Category D

Fungus Resistance

MIL-STD-454N, Requirement 4

PHYSICAL CHARACTERISTICS

Dimensions

1/2 Long ARINC Size (custom)
11" H x 5.7" W x 17.3"

Weight

35 lbs. (w/ shock tray)

Mounting

Tabletop or Shock Tray

ELECTRICAL CHARACTERISTICS

Input Power (standard)

28VDC (nominal)

Input Power (optional)

110VAC @ 47-440 Hz
Custom options available

Power Supply

Up to 1kW Plug In VPX
or Hard Mounted PSU

EMI Filtering

MIL-STD-461 compliant,
military grade input power
EMI Filter standard

Voltage Hold Up

MIL-STD-704A (optional)

HARDWARE PLATFORM

Backplane

Custom 3U VPX
10 Slot on 1.0" & 0.8" pitch

System Monitor

Optional

Customization

Customer definable
front I/O panel.
Customer definable backplane.
Power system defined
per configuration.

COMMON SPECIFICATIONS

Front/Rear Bezel

Machined aluminum
alloy #6061-T6

Chassis Side Panel Extrusion

Aluminum alloy #6061-T6

Cooling

700W at 35,000 Ft altitude at
+50°C ambient temperature

User Controls

Circuit Breaker (MIL grade)
Customer definable and
configuration dependant

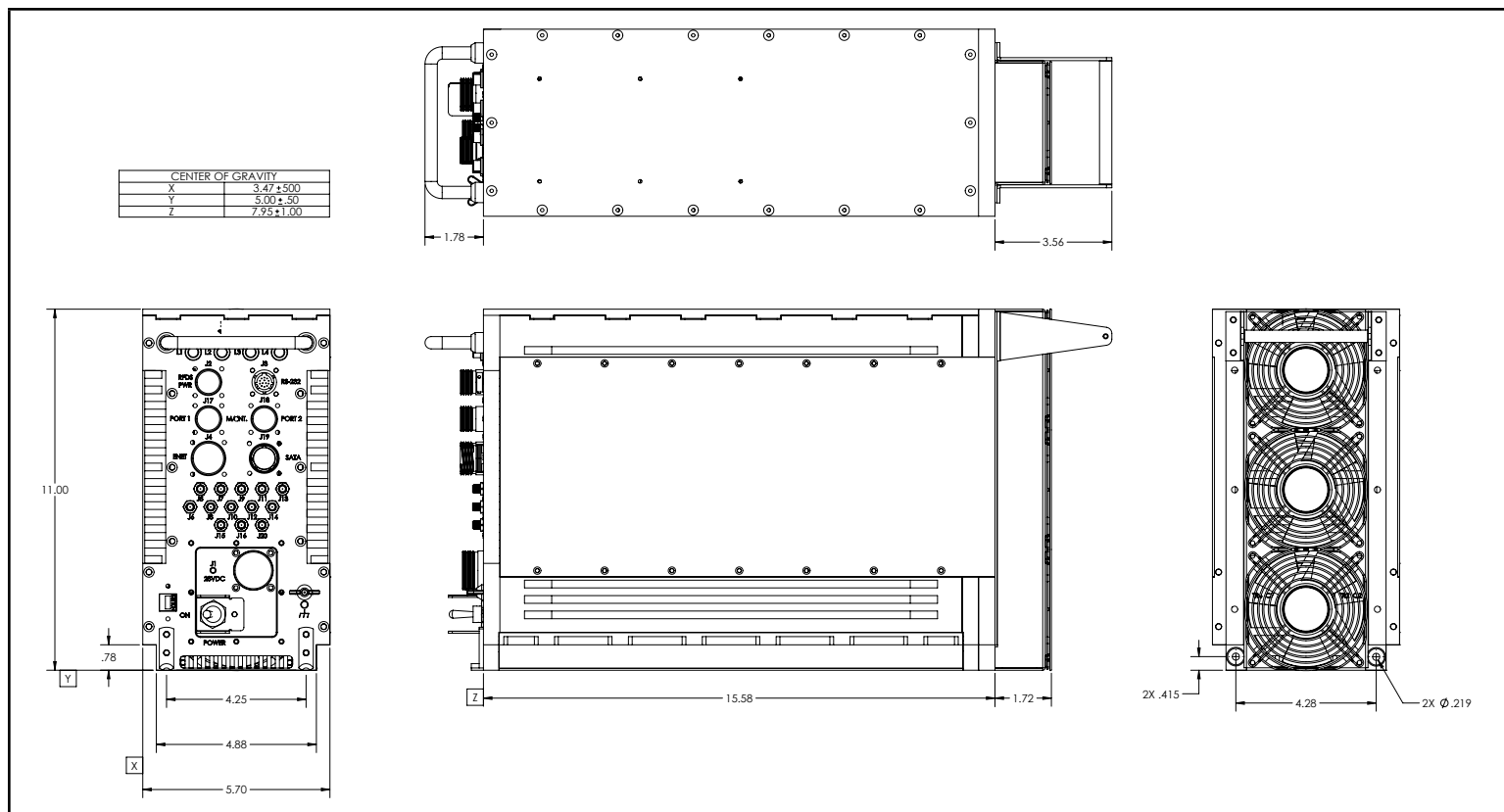
ORDERING TABLE

95-3245-02101-00x

Model 3245, 3U VPX, 10
Slot, 28VDC Power Input

Contact factory for additional configurations and options

OUTLINE DRAWING



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