

FEATURES

- 1½ ATR long forced air conduction-cooled
- Active circuitry on backplane
- Application-specific 6U OpenVPX backplane:
 - (10) 6U OpenVPX 1.0" pitch slots
 - (2) 3U OpenVPX 1.0" pitch slots
 - (1) 6U MIL-STD-704F power supply slot
- Application-specific I/O panel CCA
- RF cabling
- -40 to +40°C
- 0 to 35 kft
- 28 VDC MIL-STD-704F input
- 1569W power supply
- Elapsed Time Indicator

CHASSIS SOLUTION 79-182

UAV AIRBORNE 1½ ATR LONG HYBRID
3U/6U OPENVPX FORCED AIR
CONDUCTION-COOLED CHASSIS SOLUTION



MARKET

Military

APPLICATION

UAV Airborne ISR Application

CHALLENGE

Design and manufacture a UAV airborne high power forced air conduction-cooled ATR chassis with 10 high power 6U OpenVPX™ slots and 1569W MIL-STD-704F power supply.

CONCERNS

Program required high performance application-specific power supply along with challenging thermal requirements.

HOW CAN WE HELP REDUCE YOUR RISK?

Atrenne can help you with all of your application-specific backplane and chassis requirements.

The solutions that you see on our website are just a small sample of what we have done. Please browse our solutions and contact us for a consultation.

This application-specific OpenVPX ATR enclosure was designed based on a customer's requirements for an UAV ISR application. The enclosure is a 1½ ATR chassis designed to perform in 0 to 35,000 ft and -40 to +40°C environment. The chassis supports 28 VDC input with a MIL-STD-704F compliant 1569W power supply. The 1½ ATR Long enclosure is forced air-cooled and supports conduction-cooled boards. The active backplane supports (10) 6U OpenVPX slots and (2) 3U OpenVPX slots of 1.0" pitch.

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UAV AIRBORNE 1½ ATR LONG HYBRID
3U/6U OPENVPX FORCED AIR
CONDUCTION-COOLED CHASSIS SOLUTION

SPECIFICATIONS

PHYSICAL	
Width	15.36"
Height	10.58"
Depth	19.57"
Weight	60 lbs. including power supply
Construction	Brazed Aluminum
ENVIRONMENTAL	
Operating Temperature	-40 to +40°C
Storage Temperature	-46 to +71°C
Altitude	0 to 35,000 ft MSL
Humidity	0 to 100% non-condensing
Cooling	<ul style="list-style-type: none">Air-cooled sidewalls utilizing built-in MIL grade high-performance fansMSL at 40°C and 35 kft at 20°C max
Shock	RTCA/DO-160E, Section 7.2, Category A for standard operational shock
Vibration	MIL-STD-810F Method 514, Procedure 1, Category 13, Figure 514.5C-9 for a propeller driven aircraft
Acceleration	Customer specific: <ul style="list-style-type: none">Sustained: +/- 2gMomentary: +/- 4gUltimate: +/- 6g
Salt Fog	Customer specific: 5% salt-fog atmosphere, 48 hours
Fungus	Uses only inherently fungus resistant grades of materials per MIL-HDBK-454, Guideline 4
EMC	MIL-STD-461E: CE102, CS101, CS114, CS115, CS116
POWER/ELECTRICAL	
DC Input	28 VDC per MIL-STD-704F
Backplane Connectors	<ul style="list-style-type: none">3U OpenVPX connectors6U OpenVPX connectorsPositronics Power Supply Connector
Connector Pitch	1.0"
Transmission Rate	3.125 Gbaud
CONSTRUCTION	
Top & Bottom	Aluminum 6061
Card Cage Brazement	Dip Brazed Aluminum 6061
Power Supply	<ul style="list-style-type: none">(1) 6U Conduction-cooled Power SupplyDC Outputs total 1569W

WARRANTY

This product has a one year warranty.

CONTACT INFORMATION

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