

FEATURES

- 1-ATR long liquid cooled
- Application-specific 6U OpenVPX backplane:
 - 13 slots 6U OpenVPX with ultra high speed Gen3 >10 Gbaud signaling
 - 3 slots 6U VITA 62 power supplies
- 28 VDC MIL-STD-704F input
- 2.7kW power supply
- VPX+ RTM cabling for I/O
- Top hat cover providing bend radius for fiber optic cables from module faceplates
- Can power and cool >200W per slot subject to adequate supplied fluid temperature and flow rate. Even higher power is possible but would require additional power supply slots. Contact factory for specific power and cooling requirements.

CHASSIS SOLUTION 63-173

1-ATR LONG ULTRA HIGH POWER
LIQUID CONDUCTION-COOLED
OPENVPX ATR CHASSIS SOLUTION FOR
ISR APPLICATIONS



MARKET

Military

APPLICATION

Airborne ISR Application

CHALLENGE

Design and manufacture an ultra high power liquid cooled ATR chassis with 13 high power 6U OpenVPX™ slots and 2.7kW MIL-STD-704 power supply.

CONCERNS

Demonstration program required low NRE and quick turn design. We were able to provide a solution that maximized re-use of existing IP to meet the budget and time frame requirements, while supporting ultra high power and ultra high speed backplane signaling.

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 solution was based on a similar high power existing chassis design with liquid conduction cooling. It required a new application-specific high performance OpenVPX backplane and even higher power.

CHASSIS SOLUTION 63-173

1-ATR LONG ULTRA HIGH POWER
LIQUID CONDUCTION-COOLED OPENVPX ATR
CHASSIS SOLUTION FOR ISR APPLICATIONS

SPECIFICATIONS

PHYSICAL	
WIDTH	12.59"
HEIGHT	12.56"
DEPTH	23.23"
WEIGHT	54 LBS. INCLUDING (3) POWER SUPPLIES
CONSTRUCTION	VACUUM BRAZED ALUMINUM
ENVIRONMENTAL	
OPERATING TEMPERATURE	-40 TO 85°C
STORAGE TEMPERATURE	-55 TO +100°C
ALTITUDE	0 TO 50,000 FT MSL
HUMIDITY	5 TO 95% NON-CONDENSING PER MIL-STD-810F, METHOD 507.4
COOLING	<ul style="list-style-type: none"> Liquid cooled sidewalls utilizing EGW coolant and Quick Disconnect Couplings Chassis is able to cool > 200W per slot subject to adequate supplied fluid temperature and flow rate. Even higher power is possible but would require additional power supply slots. Contact factory for specific power and cooling requirements.
SHOCK	30 G, 16 MSEC PER MIL-STD-810F, METHOD 516.5, PROCEDURE I
VIBRATION	PSD OF 0.04 G2/HZ FROM 5 TO 2000 HZ PER MIL-STD-810F, METHOD 514.5, PROCEDURE I, CATEGORY 21
SAFETY	DESIGNED TO MEET UL 60950; CSA 22.2 #234; TUV EN60950
EMC	MIL-STD-461E: CE101, CE102, CS101, RE101, RE102, RS101, RS103
POWER/ELECTRICAL	
DC INPUT	28 VDC PER MIL-STD-704F
BACKPLANE CONNECTORS	<ul style="list-style-type: none"> 6U OpenVPX connectors 6U VITA 62 P/S connectors VPX+ RTM Cables for I/O
CONNECTOR PITCH	1.0"
TRANSMISSION RATE	10.3 GBAUD
CONSTRUCTION	
TOP & BOTTOM	ALUMINUM 6061
CARD CAGE BRAZEMENT	VACUUM BRAZED ALUMINUM 6061
POWER SUPPLY	<ul style="list-style-type: none"> (3) 6U VITA 62 Conduction-cooled Power Supplies DC Outputs total 2.7 kW

WARRANTY

This product has a one year warranty.

CONTACT INFORMATION

www.atrenne.com
sales@atrenne.com
508.588.6110 or 800.926.8722

The information in this document is subject to change without notice and should not be construed as a commitment by Atrenne, a Celestica company. While reasonable precautions have been taken, Atrenne assumes no responsibility for any errors that may appear in this document. All products shown or mentioned are trademarks or registered trademarks of their respective owners.

