

3U OpenVPX™, Rugged ATR

1/2 Short



OpenVPX

Description

ELMA's line of rugged Air Transport Racks (ATRs) provide ideal cooling and reduced weight through superior design practices. DC and AC power options and custom I/O configurations are available. This short 1/2 ATR ships with a 6-slot OpenVPX™ backplane and can accommodate other architectures such as 3U CompactPCI® and MicroTCA™.

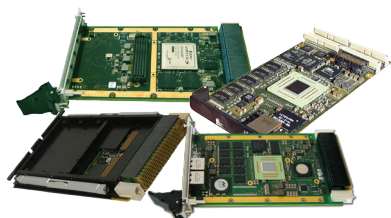
The all-aluminum ATR incorporates military-grade components like MIL-STD-38999 connector, integrated sensors, line filters, on/off and reset switches, LEDs, fuses, breakers, etc. EMC shielding compliant to MIL-STD-461E. Fan options include the use of a military-grade, high-altitude fan tray that can operate under extremely harsh temperature conditions. Depending on specific applications, commercial, industrial, or military-grade power supplies are available.

Features

- 1/2 ATR, conduction-convection cooled
- Advanced airflow design distributes air across external fins in sidewalls
- 6-slot, 3U OpenVPX (VITA 65) backplane, 1 in pitch
- Meets ARINC 404A and ANSI/VITA 48.2
- Aluminum dip-brazed design to meet rugged environments
- Low weight and ideal for weight critical applications
- Accommodates fixed-mount or plug-in 28 VDC power supplies
- Power supply and line filter combination optimized to meet MIL-STD-461E
- Also available with 3U CompactPCI and MicroTCA backplanes

Benefits

- Modular design enables various configurations
- Easily scalable using the same side walls
- Plug-in power supply modules and custom front I/O configurations
- Wide selection of backplanes in various architectures



Optional Computing Products

- 3U and 6U VPX compliant single board computers.
- Storage solutions; Secure, Rugged, NAS, RAID.
- Blade level networking boards (fabric switches)
- FPGA configurable I/O solutions
- Ruggedization programs

Ordering Information



Description	Order Number
• 1/2 ATR tall, short • Holds 6, 3U x160mm conduction cooled cards (1 in) • Customized front I/O panel • 6-slot OpenVPX backplane • No device mounting • 2 x 12 VDC fans @ 51 CFM each • 400 W fixed-mount 28 VDC power supply	ATRATS06BUNXHTC4 VPX

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MicroTCA™ and CompactPCI® are registered trademarks of PICMG.

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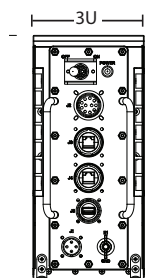


ATR

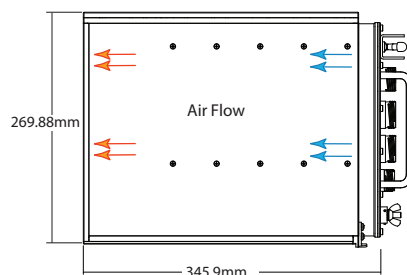


VITA

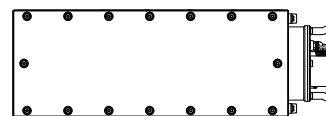
Line Drawings



Front View



Side View



Top View

Environmental

	Operating	Storage / Transit
Temperature:	-40° C to +70° C, -55° C to +85° C optional	-20° C to +70° C
Altitude:	30,000ft (1,829m)	50,000ft (15,240m)
Humidity:	0% to 95% non-condensing	5% to 95% non-condensing
Shock:	30Gs @ 11ms	15Gs @ 11ms (per ASTM 0775)
Vibration:	1.0G ² /Hz (RMS 12G) @ 15 to 2,000Hz	1.0G ² /Hz (RMS 12G) @ 15 to 2,000Hz
Agencies:	Designed to meet MIL-STD-810F, MIL-STD-461E, & MIL-STD-901D	
Weight:	Approx: 12.5lbs	

Order Information

ATR



Width

A = ½ (123.95mm)
 B = ¾ (190.5mm)
 C = 1 (257.05mm)
 D = 1½ (390.65mm)
 Z = Custom

Height

S = Standard (193.55mm)
 T = Tall (269.88mm)
 Z = Custom

Depth

L = Long (498mm)
 S = Short (320.5mm)
 Z = Custom

Number of Slots

00-20: Single BP
 Example 7 slots = 07

BP Bare Board

B = oVPX, 3U, 1in (VITA 65)
 D = oVPX, 3U, .8in (VITA 65)
 I = oVPX, 3U, 1in+ .8in (VITA 65)
 W = VPX, 3U (VITA 46)
 V = CPCI Serial
 X = No BP installed
 Y = Hybrid
 Z = Custom

BP Connector Configuration

D = CPCI (P1 & P2 S; P3, P4, P5 I)
 U = RT-2 (J0-J2) 3U
 W = RT-2 (J0-J2) 3U, RTM
 X = No connectors
 Y = Hybrid
 Z = Custom

Drives

Y = Yes
 N = No

Device Mounting

F = Fixed-mount devices
 I = Shock-isolated devices
 X = No mounting

Cooling

C = Conduction
 H = Conduction-convection
 L = Liquid
 V = Convection

Card Orientation

V = Vertical
 H = Horizontal
 T = Top load

PSU Input

C = 90-230 VAC (Fixed)
 N = 28 VDC (Fixed)
 Q = MIL-STD-704E, 28 VDC
 R = MIL-STD-704E, 270 VDC
 S = Custom
 X = No PSU

PSU Output

(Not all PSU combinations available)
 A = 100 - 199 watts (w 3.3 V)
 B = 200 - 299 watts (w 3.3 V)
 C = 300 - 399 watts (w 3.3 V)
 D = 400 - 499 watts (w 3.3 V)
 E = 500 - 599 watts (w 3.3 V)
 X = Not Installed

Shielding Level

4 = MIL-STD-461
 X = Not installed