ATR058-HEX-3U

OpenVPX™

KEY FEATURES

- 5/8 OpenVPX Top-loaded ATR enclosure for 3U boards
- SOSA Aligned options available
- Versions for 6U boards available upon request
- Fully ruggedized with MIL-grade or commercial cabling for demo purposes
- Sealed conduction cooled enclosure with dual rear heat exchanger + extended internal fins
- Up to 6 slots at 1.0" pitch + VITA 62 PSU slot
- Design options to 16 slots upon request
- 233mm H x 163mm W x 336mm D (standard, depth depends on slot number)
- 3U OpenVPX or custom backplanes
- Conduction cooled with external fans (contact Pixus for higher heat dissipation options—simulation to 800W has been performed)
- VITA 62 and specialty PSU options, MIL 704
- 12V, 5V, and 3.3V power outputs standard
- Customizable backplane I/O, cabling, and front panel I/O

The ATR058HEX-3U is a MIL-rugged ATR enclosure, available in development or deployable versions.   Pixus leverages our library of OpenVPX backplane profiles to provide you with a solution to meet your requirements and minimize NRE costs.

Depending on your needs, Pixus will customize the backplane I/O, cabling, and I/O to your specifications. A backplane configuration part number will be provided separately. The rear of the enclosure has dual 202 CFM/ea. heat exchangers.   Consult Pixus for other options. The inside of the ATR is fully enclosed, while the outside shell pulls air through the sidewalls for enhanced cooling.

Mounting trays and other accessories are also available. Contact Pixus for details.

POWER & COOLING

The ATR058-HEX-3U can employ various grades of PSUs. Typically VITA 62 / SOSA PSUs are utilized, up to 700W. However, other PSU options are available. VITA 62 power supplies are designed for avionics and other MIL rugged applications and conform to MIL-STD-704, 461, and 810. There are also various options for AC or DC power feeds (typically 24-48VDC, or 90-264 VAC, etc.).   Note that we typically load a higher power PSU than the max payload power for overhead and prolonging the MTBF. Dual 202 CFM/ea. MIL-grade fans are standard, but the fans are chosen per application. Commercial-grade fans are available for demo/development systems.
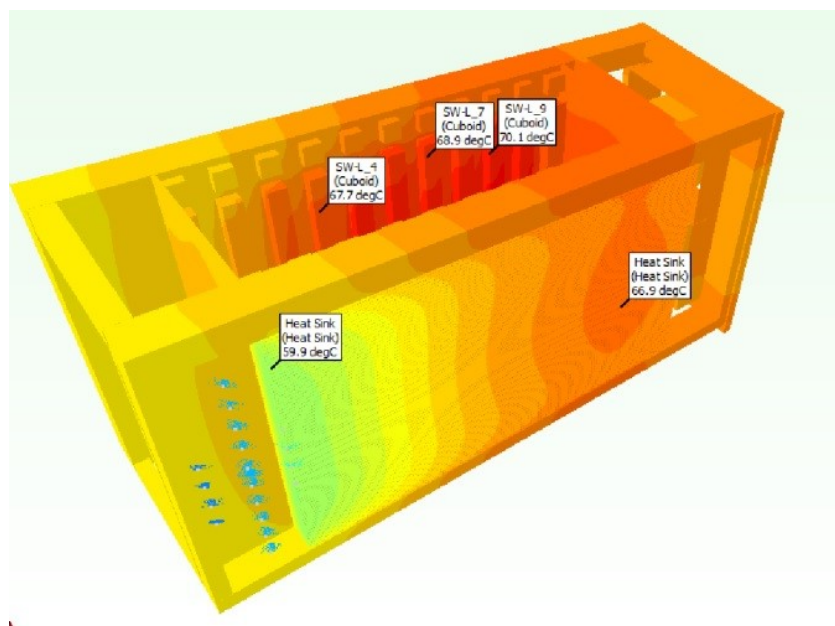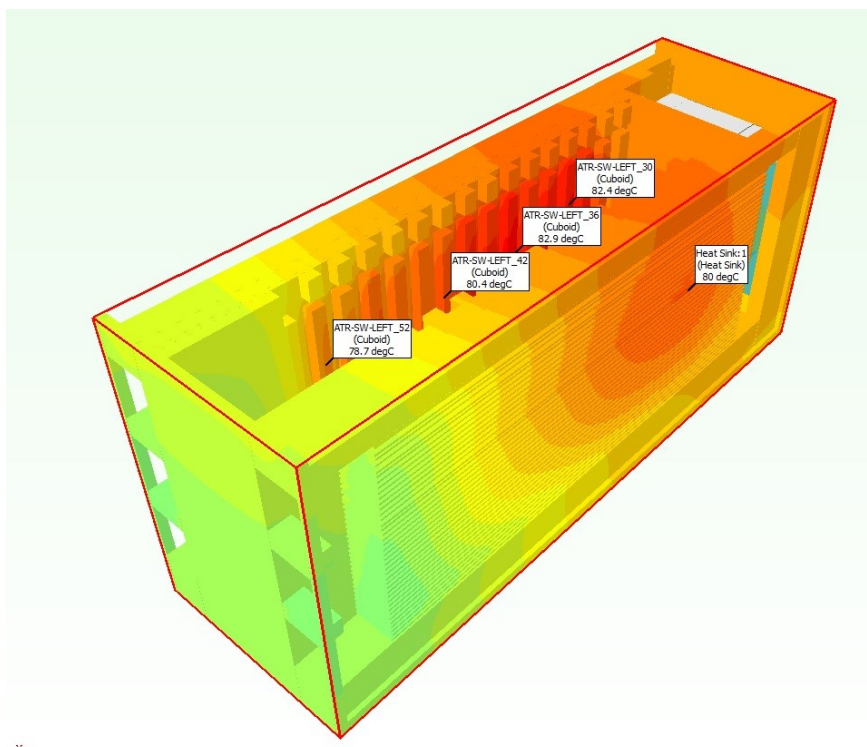
TOP VIEW—INTERNAL
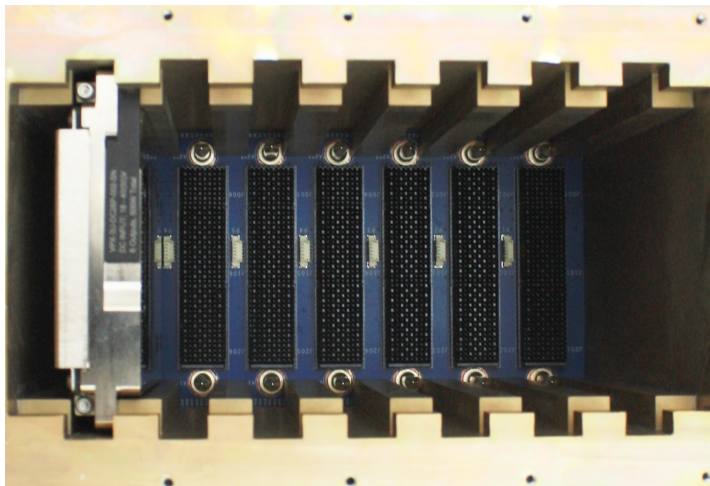
REAR VIEW

Other Sizes & Design Options

Longer and wider options of the ART058 are available upon request.   Below are a couple of examples of thermal simulation of high wattage (including up to 800W) OpenVPX designs. Contact Pixus to discuss your application.

5/8 ATR Chassis, Sealed with External Fans

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SPECIFICATIONS

Architecture		
Physical	Dimensions	Height: 233mm*
	Pitch	1.0" slot pitch standard, 0.85" optional
		Width: 163mm*, width may vary for cooling requirements, consult factory
		Depth: 336mm*
	Weight	~ 17 lbs, dual fan configuration, cabling not included
Type	ATR chassis	*consult Pixus for other size options
Standards		
ARINC	Type	ARINC 404, 600
VITA/ANSI/SOSA	Backplane, Chassis	VITA 65 for OpenVPX (optional), VITA 48.x, SOSA Aligned options
MIL-STD	Type	810F (shock, vibration to 20G, environmental), 461F (EMI), 704 (power)
Configuration		
Power	Type	24-28VDC, 48VDC, 90-264VAC input @ 47-880Hz
		Various output options (3.3V, 5.5V, +/- 12V)
Environmental	Temperature	Operating temperature: -40° to +85°C
		Storage temperature: -55° to +90°C
	Altitude	Application dependent, consult Pixus for details
Conformal Coating		Upon request (See page 4 selection "J" for available options)
Other		
MTBF	Varies	
Certifications	Designed to meet FCC, CE and UL certifications where applicable	
Standards	ISO9001:2015	
Compliance (DTM)	MIL-STD-810, MIL-STD-461, DO-160	
Warranty	Two years	
Trademarks and logos	The Pixus Logo is a registered trademark of Pixus Technologies Inc. other registered trademarks are the property of their respective owners. Specs. subject to change without notice.	

ORDERING OPTIONS

ATR058-HEX-ABCCD-EFG-J

A = Backplane

    1 = 3U OpenVPX (standard)
    2 = Other

B = Backplane Speed

    1 = 6.25 Gbps   2 = 8 Gbps (for PCIe Gen3)
    3 = ~10 Gbps (for 40GbE)   4 = Other
    5 = ~ 25 Gbps (for 100 GbE)

CC = Payload Slots (Not including PSUs)

    Example 0n = n slots
    01 = 1 slot
    02 = 2 slots
    03 = 3 slots
    09 = 9 slots

D = PSU Slots

    1 = 1 VITA 62 / SOSA slot (standard)
    2 = 2 VITA 62 /SOSA slots
    3 = Other

E = PSU Input

    1 = 24-28V DC
    2 = 48V DC
    3 = 90-230V AC
    4 = Other

F = PSU Type

    1 = VITA 62 / SOSA to 400W
    2 = VITA 62 / SOSA to 500W
    3 = VITA 62 / SOSA to 850W
    4 = VITA 62 / SOSA to 1000W
    5 = Other

G = Cooling

    1 = Sealed with heat exchange (standard)
    2 = Sealed with heat exchange, fan not installed

J = Conformal Coating

    0 = None
    1 = Humiseal 1A33 Polyurethane
    2 = Humiseal 1B31 Acrylic

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