

FEATURES & BENEFITS

- ATR based is designed to meet VITA 48.8 requirements (SWaP-C)
- Application-specific 3U
- 11- slot SOSA aligned backplane
- 9 x 3U SOSA aligned payload slots
- 2 x 3U MIL-STD-704F application-specific power supply slots
- 28 VDC DC/DC converter provides regulated fan voltage for optimum cooling performance
- Application-specific I/O panel CCA
 - I/O panel CCA with rugged
 - I/O connectors and signal conditioning

714 SERIES

AIR FLOW THROUGH ATR ENCLOSURE



One of the most dependable active cooling methods for systems with large power densities is air flow through (AFT) cooling. The 714 series AFT chassis is at the forefront of high-performance embedded computing (HPEC). Atrenne's AFT-cooled chassis can withstand thermal loads of up to 150W per system slot due to its engineered thermal path construction. Innovative cooling allows advanced processors to run at optimal performance levels with increased reliability.



SOSA
Sensor Open Systems Architecture

The 714 AFT method positions the airflow directly over the heated components. This is true for both the base card and mezzanine card components. Maximal performance can be attained by connecting the mezzanine card's high-power components directly to the cooling ambient air. A conductive, flexible space plate connects each highpower component to the AFT heat frame.

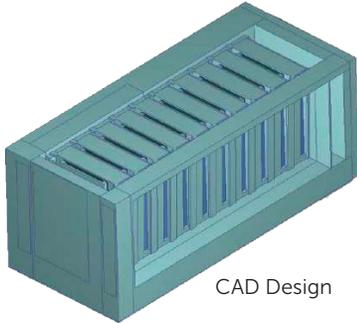
The frame and construction of the 714 Series show the fabrication techniques used to make modern commercial and military aircraft, which are designed for maximum strength and lightweight deployment. With its size-adjustable aluminum frame, solidrivet and welded construction and reinforcement from aluminum outer panels, this ATR is built to handle the harshest shock and vibration conditions.

The 714 Series is available in standard ARINC sizes that include 1/4 ATR Short to 1 1/2 ATR Long and any custom form factor desired due to the flexibility of the modular frame. The 714 Series will accept a variety of bus structures and platforms, including SOSA™, OpenVPX™.

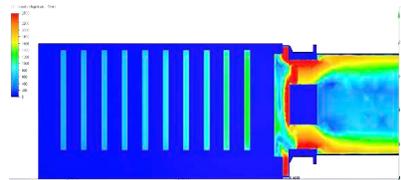
Innovation through design. Consult an Atrenne representative for more information about the 714 Series.

DIMENSIONS:

ATR SIZE ORDER NUMBER	APROX. VOL.		WIDTH (W)		LENGTH (L1)		LENGTH (L2)		HEIGHT (H)		MAX. SLOTS
	IN3	LITRE	+/- .03 IN	+/- .76MM	+/- .04 IN	+/- 1.0MM	INCHES	MM	INCHES	MM	
1 Short	1346	20.06	10.12	257.05	12.52	318.0	12.62	320.5	10.62	269.88	6-8 Slots
1 Long	2098	34.38	10.12	257.05	19.52	495.8	19.62	498.3	10.62	269.88	12 Slots
1-1/2 Long	3188	52.24	15.38	390.65	19.52	495.8	19.62	498.3	10.62	269.88	18 Slots



CAD Design



Thermal simulation analysis



3U SOSA aligned, air flow through chassis

SPECIFICATIONS:

STORAGE TEMP.	-40°C to +85°C		ACCELERATION	13.5g	MIL-STD-810F Method 513.5
OPERATING TEMP.	-40°C to +70°C	MIL-STD-810F	ALTITUDE	10Kft standard fans 50Kft High Altitude Fans	MIL-STD-810F Method 500.4
EMC	- -	MIL-STD-461D	HUMIDITY	Up to 95% RH	MIL-STD-810F Method 507.4
INPUT POWER	28VDC 115VAC/ 400Hz. 1Ø 115VAC/ 400Hz. 3Ø	MIL-STD-704A Thru 704E MIL-STD-1275A	SALT FOG	5% for 48 Hours	MIL-STD-810F Method 509.4
WIRING	Low Toxicity	MIL-C-24643	FUNGAL GROWTH	No Growth	MIL-STD-810F Method 508.5
IP RATING	- -	IP53	THERMAL SHOCK	Sudden change in temperature of surrounding atmosphere	MIL-STD-810F Method 503.4
VIBRATION	15 to 2,000Hz At 0.1g2/ Hz. (RMS~12g)	MIL-STD-810F Method 514.5	SAND & DUST	Sand @ 5,700 ft./min. Dust @ 1,750 ft./min.	MIL-STD-810F Method 510.4
SHOCK	20g for 11ms	MIL-STD-810F Method 516.5	FINISH	Yellow Chromate Paint	MIL-C-5541 MIL-STD-595

WARRANTY:

This product has a one year warranty



- Denotes: Air Cooled Series
- ATR Size: 1 and 1½ and Custom
- Denotes: Factory Assigned Number

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The 714 Series modular design provides an expansive range of options and configurations in size, power and I/O that allows for users to meet their requirements without the limitations of selected configurations. Consult the factory or your Atrenne representative to configure your ATR system.

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