

## BENEFITS

- Supports 6U backplanes, up to seven slots: VPX<sup>™</sup>, CompactPCI® and VME
- Extreme cooling development chassis providing >19 CFM of cooling air
- Open frame allows easy access to boards for testing and debug
- Selection of power supplies up to 1200W
- Fan speed control knob allows adjustment of fan speed for lower fan acoustic noise (not available in the ATX version)
- Variety of 6U backplanes including VPX Gen-3 backplanes rated for 10.3 Gbaud



**OF-SMART6** 

## SMART OPEN FRAME CHASSIS

The OF-SMART6 is an open frame chassis for 6U, VPX, CompactPCI and VME lab development. Atrenne's family of open frame chassis provide easy access to board components for testing and debug. The high-speed -fan provides greater than 19 CFM of cooling air per slot. The OF-SMART6 is available with a choice of backplanes, including Atrenne's newest 10 Gbaud, Gen-3 backplanes.

This lab development chassis is part of Atrenne's industry-leading family of high-performance chassis and backplanes.

## **FEATURES**

- Optional USB connection for remote voltage margining and current monitoring
- Open sides and top support access by engineering and test personnel for debugging
- Supports 6U backplanes, up to seven slots: VPX REDI<sup>™</sup> (1.0" pitch), VPX<sup>™</sup>, CompactPCI® (cPCI) and VME
- VPX REDI designed to the latest ANSI/VITA 46.0, VITA 46.3, ANSI/VITA 46.10, VITA 48.0, VITA 48.1 and VITA 65 OpenVPX<sup>™</sup> specifications
- 6U x 80 mm Rear Transition Modules (RTMs) per VITA 46.10 (for VPX) and IEEE 1101
- Extreme cooling development chassis
- 6U x 160 mm card cage with x7 1.0" pitch positions per VITA 48.1 VPX REDI or x9 0.8" pitch positions per IEEE 1101.10
- Available with Gen-3 10.3 Gbaud backplanes
- High performance 335 CFM fan provides >19 CFM per slot
- ATX power supply version: 252 CFM fan provides >12 CFM per slot
- Patented CoolSlot® card guides improve airflow distribution across the cards
- Fan speed control knob allows adjustment of fan speed for lower fan acoustic noise (not available in the ATX version)



# OF-SMART6

## SMART OPEN FRAME CHASSIS

- Selection of power supplies up to 1200W
- Smart power supply control interface
- Front panel power LED indicators and system reset
- Rear panel AC power switch and ESD jack
- x2 rear mounted power connections for external peripherals

### TABLE 1: TECHNOLOGY OVERVIEW

PHYSICAL				
Width	8.58" (218.9 mm)			
Height	20.68" (525.3 mm)			
Depth	14.0" (355.6 mm)			
Weight	25 lbs			
CONSTRUCTION				
Extrusions	6063-T6 aluminum, precision grade with clear iridite plating			
Sideplates	.250" thick aluminum, 5052-H32 with clear iridite plating			
Card Guides	Molded plastic, Noryl N190X black, UL94-V0			
	ENVIRONMENTAL			
Safety Agencies	Designed to meet UL60950; CSA 22.2 #234; TÜV EN60950			
Flammability Rating	UL94-V0			
Earthing	ESD ground clip designed to comply with the earthing requirements of IEEE 1101.11 Section 15, IEC 60950 Section 2			
EMC	Designed to meet FCC Part 15, Subpart J, Class A; CISPR 22, Class A: conducted portion only			
POWER				
AC Input	20A 110/220 VAC inlet 110V line cord provided			



## **OF-SMART6**

## SMART OPEN FRAME CHASSIS

### TABLE 2: CHASSIS AND POWER SUPPLY CONFIGURATION OPTIONS (continued on next page)

CONFIGURATIONS	BACKPLANE	POWER SUPPLY	OPENVPX PROFILE DIAGRAM
OF-SM6-OVP05C1AB		1150W 12 V-centric	024-900-05-CEN1-01 Gen-2 6.25 Gbaud Payload Switch/ slots Managemer
OF-SM6-OVP05C1AC	6U VPX 5-slot OpenVPX BKP6-CEN05-11.2.5-3 Central switch topology with 4x fat pipe data plane 2x ultra thin pipe control plane Dual fat pipe expansion plane	1200W 5 V-centric	Expansion (Pre) Data Plane (PP)
OF-SM6-OVP05C1AD		ATX 500W	Control Plane (LTP) Management Plane (FMB) UESty Plane Ncludes Power
OF-SM6-OVP06AB	6U VPX 6-slot OpenVPX BKP6-DISO6-11.2.15-1 Distributed topology with 5-slot full mesh fat pipe data plane No control plane No expansion plane	1150W 12 V-centric	024-900-06-01 Gen-1 3.125 Gbaud Payload Switch/ slots Management vPx VPX VPX VPX VPX VPX 1 2 3 4 5 6
OF-SM6-OVP06AC		1200W 5 V-centric	Dris Plane (FF = 4 lanes)
OF-SM6-OVP06AD		ATX 500W	Control Plane (TP = 4 pair) Management Management Utility Plane Excludes Power
OF-SM6-OVP06D1AB		1150W 12 V-centric	024-900-06-DIS1-01 Gen-2 6.25 Gbaud Payload Switch/ slots Managemer VPX VPX VPX VPX VPX VPX VPX 1 2 3 4 5 6
OF-SM6-OVP06D1AC	6U VPX 6-slot OpenVPX BKP6-DISO6-11.2.10-3 Distributed topology with 5-slot full mesh fat pipe data plane 2x thin pipe control plane No expansion plane	1200W 5 V-centric	Drite Plane (FP = 4 lanes)
OF-SM6-OVP06D1AD		ATX 500W	Control Plane (TP = 4 pair) Management Plane (PME) VLBty Plane

1. Consult factory for other configurations.

ATX power supply versions do not comply with VITA 65 airflow requirements nor ANSI/VITA 46.0/VME power supply voltage tolerance and ripple/noise requirements. +3.3VAUX is not available for remote voltage margining and current monitoring. If required, contact factory. 2.

3.



## TABLE 2: CHASSIS AND POWER SUPPLY CONFIGURATION OPTIONS (continued on next page)

CONFIGURATIONS	BACKPLANE	POWER SUPPLY	OPENVPX PROFILE DIAGRAM
OF-SM6-OVP06X1AB	6U VPX 6-slot OpenVPX Pass-thru	1150W 12 V-centric	024-900-06-X1-01 - Pass-thru Expansion Plane (pass-thru) Control Plane (pass-thru) Management Plane (PMB) Utility Plane Includes Power
OF-SM6-OVP6C23AB	6U VPX 6-slot OpenVPX BKP6-CEN06-11.2.x-4 10.3 GBaud - NEW! Central switch topology with 4x fat pipe data plane 2x ultra thin pipe control plane Dual fat pipe expansion plane	1150W 12 V-centric	024-900-06-C2G3-01
OF-SM6-VX708AA	6U VME64x 8-slot	750W	
OF-SM6-OVP6X13AB	6U VPX 6-slot OpenVPX Pass-thru 10.3 GBaud- NEW!	1150W 12 V-centric	024-900-06-XIG3-01 - Pass-thru   VPX VPX VPX VPX VPX VPX VPX VP VP   Expansion 1 2 3 4 5 6   Plane (pass-thru) 1 2 3 4 5 6   Data Plane (pass-thru) 1 2 3 4 5 6   Data Plane (pass-thru) 1 2 3 4 5 6   Management Plane (PMB) Plane Plane 0 Plane 0

1. Consult factory for other configurations.

2. ATX power supply versions do not comply with VITA 65 airflow requirements nor ANSI/VITA 46.0/VME power supply voltage tolerance and ripple/noise requirements.

3. +3.3VAUX is not available for remote voltage margining and current monitoring. If required, contact factory.



## **TABLE 3: ORDERING INFORMATION**

		PART NUMBER: OF-SM6-	XXX	XXXX	Х	Х
BUS ARCHITECTURE						
(CL3) :	= cPCI, left hand system slot, 3.3V V(I/O), 32-bit, 33 MHz					
(CL5)	= cPCI, left hand system slot, 5V V(I/O), 32-bit, 33 MHz					
(CL6) :	= cPCI, left hand system slot, 3.3V V(I/O), 32-bit, 66 MHz					
	(VX7) = VITA 1.7 high current VME64x		XXX			
	(VX8) = VME64x with P0					
	$(VXR) = VXS \ sRIO$					
(OVP) = OpenVPX, VPX REDI 1.0" slot pitch per /	ANSI/VITA 48.0, ANSI/VITA 48.1, ANSI/VITA 46.0, VITA 46.3, VITA 46.4, V	/ITA 46.9, VITA 46.10, VITA 65				
	Backplane					
	(06) = VME64x, 8 slots with P0					
	(08) = VITA 1.7 high current VME 64x, 8 slots					
	(08) = VXS					
	(03, 05) = cPCI					
(06) = OpenVPX 1.0" pitch, BKP6-DIS06-11.2.15.1, 6 slots, 5 payload slots w/mesh data fabric, 1 uncommitted slot w/all signals to RTM, 3.125 Gbaud						
(06C1) = OpenVPX 1.0" pitch, BKP6-CEN06-11.2.8-3, 6 slots, 5 payload slots, 1 data switch slot, star fabric topology, 6.25 Gbaud						
(05C1) = OpenVPX 1.0" pit	ch, BKP6-CEN05-11.2.5-3, 5 slots, 4 payload slots, 1 switch slot, 6.2	5 Gbaud		XXXX		
(06D1) = OpenVPX 1.0" pitch, BKP6-DIS06-11.2.10-3, 6 slots, 5 payload slots w/mesh data fabric, 1 control switch, 6.25 Gbaud						
(06X1) = OpenVPX 1.0" pitch, 6-slot, no data plane, control plane, or expansion plane fabric connectivity, all fabric signals pass through to RTM connectors for user						
(6C23) = OpenVPX 1.0" pitch, BKP6-CEN06-11.2.	-4, 6 slots, 5 payload slots, 1 data and control switch slot, star fabric NEW!	c topology, Gen-3, 10.3 Gbaud -				
(6X13) = OpenVPX 1.0" pitch, 6-slot, no data p	lane, control plane, or expansion plane fabric connectivity, all fabric s connectors for user, Gen-3, 10.3 Gbaud - NEW!	signals pass through to RTM				
	INPUT POWER			,		
(A) = AC 115-220 auto-ranging	with US 110V cordset (consult Atrenne applications for non-US power	connections)			Х	
	POWER SUPPLY					
(A) = Smart 750W Only for 6U cPCI/VME/VXS	+3.3V @ 60A +5V @ 60A +/-12V @ 4A +24V (fans) @ 4A					
(B) = Smart 1150W for 12 V-centric VPX	VS1/VS2: +12V @ 62.5A VS3: +5V @ 35A	+3.3VAUX @ 10A +/-12VAUX @ 4A +24V (fans) @ 4A				x
(C) = Smart 1200W for 5 V-centric VPX	VS1/VS2: +12V @ 17A VS3: +5V @ 150A	+3.3VAUX @ 10A +/-12VAUX @ 4A +24V (fans) @ 4A				^
(D) = ATX 500W	VS1: +12V @ 18A VS3: +5V @ 30A (220W max total for 3.3V and 5V)	+3.3VAUX @ 30A +12VAUX @ 15A -12VAUX @ 0.8A +12V (fans) @ 15A				

Notes:

ATX power supply versions do not comply with VITA 65 airflow requirements nor ANSI/VITA 46.0/VME power supply voltage tolerance and ripple/noise requirements. +3.3VAUX is not available for remote voltage margining and current monitoring (if required by factory) 1.

2.



#### **ACCESSORIES**

099-923: USB to i2C converter for remote control, voltage margining and current monitoring (for use with power supply options A, B and C only)

#### WARRANTY

This product has a one year warranty.

#### **CONTACT INFORMATION**

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