

## BENEFITS

- High performance 25 Gbaud Gen-4/5 backplanes compatible with 100 Gb Ethernet (100GBASE-KR4) and PCI Express® (PCIe) Gen-4 (16 Gbaud) on OpenVPX data plane and expansion plane fabrics
- Operate on high performance VITA 46.30 Multigig RT-3 connector. Contact factory for alternate connectors such as R-VPX EVO2.
- Multiple backplane profiles available, including pass-thru backplanes
- 3U and 6U with varied slot counts
- Fit in Atrenne lab development chassis and ready for deployment in rugged applications.

# GEN-4/5 OpenVPX BACKPLANES

This product family is part of the industry-leading Atrenne's product line of high performance chassis and backplanes.

## OVERVIEW

Atrenne, a Celestica company, offers a wide range of high-performance backplanes, with 6U, 3U and hybrid 3U/6U models available. Our Gen-4/5 OpenVPX backplanes are part of an innovative product family that enables end-to-end solutions for 64/100 Gigabit systems.



Designed to the demanding signal integrity requirements of PCIe Gen4 and 100GbE (100GBASE-KR4), these high-performance Gen-4/5 backplanes offer the highest signal integrity in the industry and are typically used in air-cooled or conduction-cooled development chassis. Atrenne can also design application-specific configurations to meet your individual requirements.

## FEATURES

- VITA 65 OpenVPX™ compliant backplanes
- VITA 46/VITA 48 VPX REDIT™-compliant with VITA 46.30 compliant RT3 connectors
- VITA 46.10 RTM connectors
- Multiple backplane profiles available, including backplanes with routed fabric connections, as well as both 3U and 6U pass-thru backplane versions which can be used with high-speed RTM cables
- Provisions for mechanical stops to prevent misinsertion of payload cards
- Stiffeners placed every other slot to ensure backplane rigidity
- Designed to stringent Atrenne Gen-4/5 signal integrity design rules; signal integrity-compliant for PCIe Gen4 and 100GBASE-KR4 up to 25.78125 Gbaud with extremely low insertion loss. Innovative signal integrity methods used to minimize return loss, crosstalk, and mode conversion (patented).
- Optional rear transition connectors
- Optional conformal coating
- Keying and alignment per VITA 65 and VITA 46
- Durability: mating and unmating for 200 cycles
- Non-Volatile Memory Read Only (NVMRO) signal (jumper selectable)
- Optional battery backup input, jumperable to +3.3V
- SYSCON selectable - set to 1st VPX slot as default
- Contact factory for RF feed-thru backplanes per VITA 67.x or fiber optic feed-thru backplanes per VITA 66.x

Contact factory for alternate connectors such as R-VPX EVO2

## TABLE 1: TECHNOLOGY OVERVIEW

### PHYSICAL

3U Height	5.067"
6U Height	10.317" (except 6U 16-slot backplane, which is 11.3" H)
Backplane Material	High performance low loss laminate with multi-level back-drill

### STANDARDS COMPLIANCE

ANSI/VITA 68.0-2017	ANSI/VITA 46.0-2019
ANSI/VITA 68.1-2017 +Errata	ANSI/VITA 46.10-2009 (R2015)
ANSI/VITA 65-2019	ANSI/VITA 46.30-2020
ANSI/VITA 65.1-2019	ANSI/VITA 48.0-2020
ANSI/VITA 46.3-2012 (R2018)	ANSI/VITA 48.1-2020
ANSI/VITA 46.4-2012 (R2018)	ANSI/VITA 48.2-2020
ANSI/VITA 46.6-2012 (R2018)	VITA 46.8 VDSTU
ANSI/VITA 46.7-2012 (R2018)	

### ENVIRONMENTAL

	ANSI/VITA 47 Class EAC6
Flammability Rating	UL94-V0
Temperature Ranges	Operating: -40 to +85°C Storage: -55 to +100°C

### SAFETY

Regulatory	Designed to meet UL, CSA and CE requirements
Power Rails Current Carrying	All backplanes meet VITA 65.0 OpenVPX recommended current levels

### WARRANTY

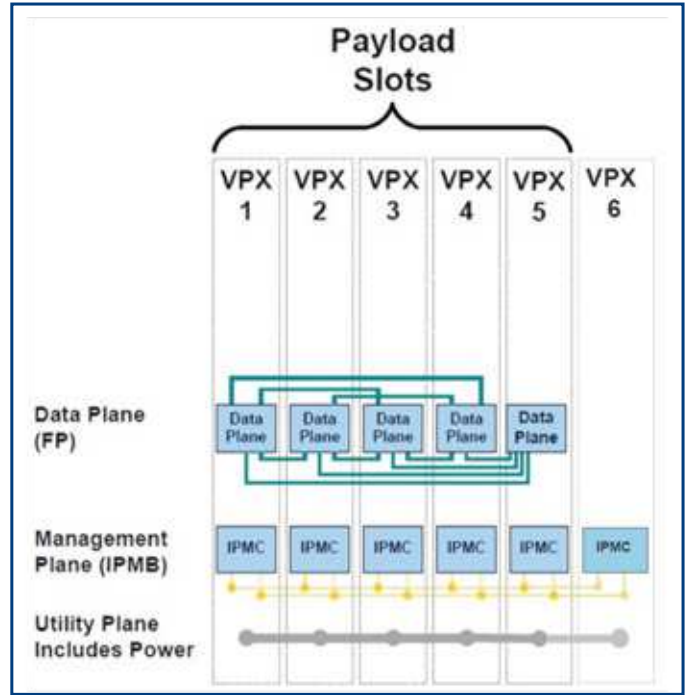
This product has a one year warranty.

### CONTACT INFORMATION

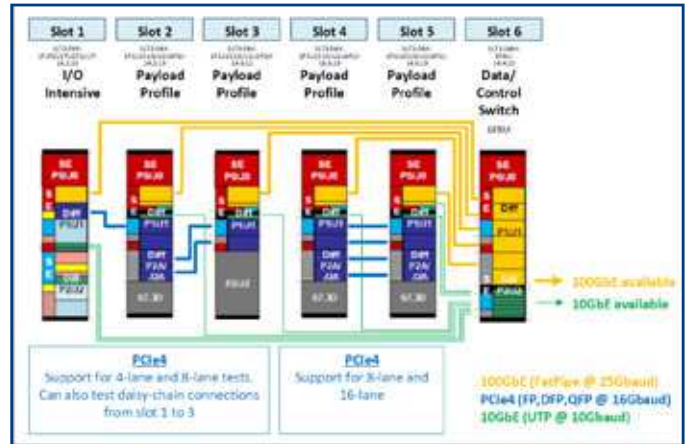
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PART NUMBER	PROFILE	SBC I/O INTENSIVE SLOT PROFILE	SBC I/O INTENSIVE MODULE PROFILE	PAYLOAD SLOT PROFILE	PAYLOAD MODULE PROFILE	PAYLOAD SLOT PROFILE	PAYLOAD MODULE PROFILE	SWITCH SLOT PROFILE	SWITCH MODULE PROFILE	
024-900-06-D1G5-01	6U, 6-slot VPX REDI 1" pitch (7 slots wide), 5 payload slots, 1 pass-through slot, mesh fabric topology, 25.78125 Gbaud	BKP6-DIS05-11.2.16-n (25.78125 Gbaud)	N/A	N/A	SLT6-PAY-4F1Q2U2 T-10.2.1	MOD6-PAY-4Fxx-12.2.x-(all)	PASS-THRU N/A	PASS-THRU N/A	N/A	N/A
024-901-06-C1G5-01	6U, 6-slot VPX REDI 1" pitch (7 slots wide), 5 payload slots, 1 pass-through slot, mesh fabric topology, 25.78125 Gbaud, optical/coax inserts not installed	3U SOSA aligned development profile (16/25.78125 Gbaud)	SLT3-PAY-1F1F2U1TU 1T1U1T-14.2.16	MOD3-PAY-1F1F2U1TU 1T1U1T-16.2.15-n1	SLT3-PAY-1F1U1S1 S1U1U4F 1J-14.6.13-0	MOD3-PAY-1F1U1S1 S1U1U4F 1J-16.6.13-n1	SLT3-PAY-1F1U1S1S 1U1U2F1H-14.6.11-0	MOD3-PAY-1F1U1S1S 1U1U2F1H-16.6.11-n1	SLT3-SWH-6F8U-14.4.15	MOD3-SWH-6F8U-16.4.16-n1



Note that the pass-through slot in Slot 6 is not shown in this diagram



The four Module Profiles ending in "-n" in the table above indicate that VITA 65.1 currently does not have any profiles supporting 16 Gbaud PCIe Gen4 nor 25.78125 Gbaud 100GBASE-KR4