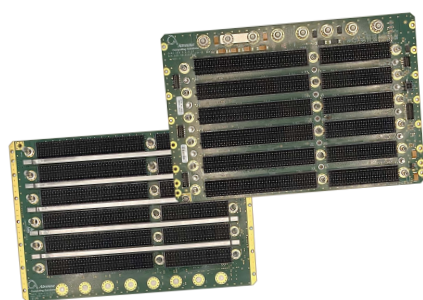




BENEFITS

- Industry's highest performance backplanes designed to address the continuous growth in digital signal processing for intense data throughput applications including C4ISR, SIGINT, ELINT, IMINT, ESM and WAMI.
- Providing exceptional high-density interconnect (HDI) and thermal performance with MEGTRON 6, the original printed circuit board (PCB) industry standard, ideal for mobile, networking, and wireless applications requiring high-speed, ultra-low loss circuit materials.
- Operate on high performance VITA 46 Multigig RT-3 connector. (Contact factory for alternate connectors such as R-VPX EVO2.)
- Multiple backplane profiles available, including pass-through backplanes
- 3U and 6U with varied slot counts
- Fit in Atrenne lab development chassis and ready for deployment in rugged applications.



This product family is part of Atrenne's product line of industry leading, 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

- High performance 25 Gbaud Gen-4/5 backplanes compatible with 100 GbE (100GBASE-KR4) and PCI Express® (PCIe) Gen-4 (16 Gbaud) on OpenVPX data plane and expansion plane fabrics
- Built with MEGTRON 6 - Ultra-low Loss, Highly Heat Resistant Circuit Board Materials
- Refined VPX connector with smaller press-fit pins, the VITA 46 Multigig RT-3 is fully compatible and inter-operable with the original VPX connectors, providing superior signal integrity performance
- VITA 65 OpenVPX™ compliant backplanes
- VITA 46/VITA 48 VPX REDI™-compliant with VITA 46.30 compliant RT3 connectors
- VITA 46.10 RTM connectors
- Provisions for mechanical stops to prevent misinsertion of payload cards
- Stiffeners placed every other slot to ensure backplane rigidity
- Optional rear transition connectors
- Optional conformal coating
- Keying and alignment per VITA 65 and VITA 46
- Durability: mating and unmating for 200 cycles

GEN-4/5 OpenVPX BACKPLANES

DATASHEET

- 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

GEN-4/5 OpenVPX BACKPLANES

DATASHEET

TABLE 2: STANDARD VPX BACKPLANE PART NUMBER MATRIX

PART NUMBER	BACKPLANE DESCRIPTION	BACKPLANE PROFILE	PAYLOAD SLOT PROFILE	PAYLOAD MODULE PROFILE	PASS THRU SLOT PROFILE	PASS THRU 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 Gbaud	BKP6-DIS05-11.2.16-n (25.78125 Gbaud)	SLT6-PAY-4F1Q2U2T-10.2.1	MOD6-PAY-4Fxx-12.2.x-(all)	N/A	N/A

Contact factory for other backplane configurations

Figure 1: 024-900-06-D1G5-01

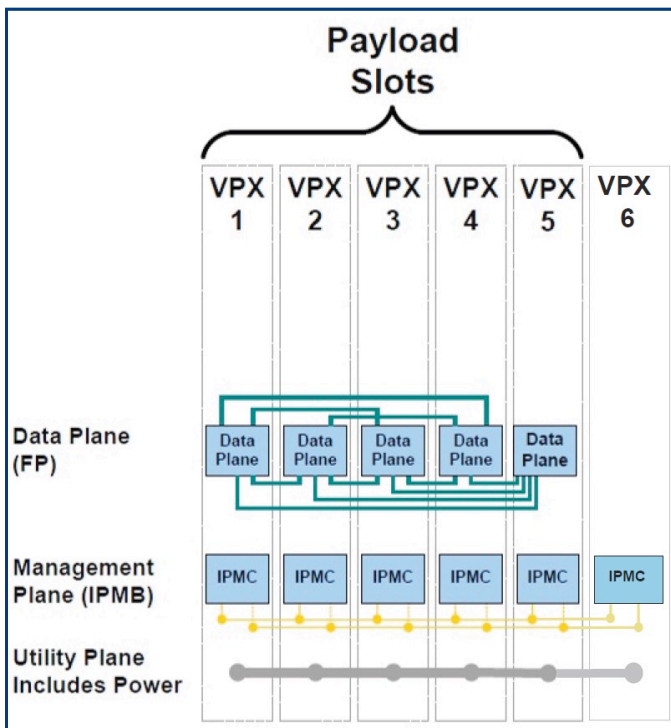
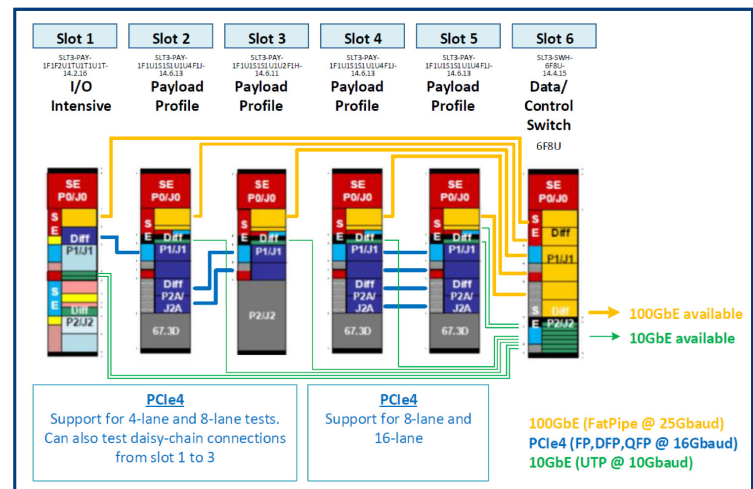


Figure 2: 024-901-06-C1G5-01



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 Gbaud 100GBASE-KR4

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

WARRANTY

This product has a one year warranty.

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