

# XMC645

## XMC Storage with Octal NVMe Solid State Drives



XMC645

## Key Features

- XMC Storage
- PCIe x8 Gen4 to host
- Eight one TB of NVMe SSD devices
- PCIe x4 Gen3 to each SSD
- 8 TB Storage

## Benefits

- Multi-Terabit storage capacity in a single module  
AMC/VPX/XMC form factor carrier
- Electrical, mechanical, software, and system-level  
expertise in house
- Full system supply from industry leader
- AS9100 and ISO9001 certified company

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# XMC645

The XMC645 is a storage (HBA) which supports up to eight NVMe devices. The NVMe storage provides high speed and low latency read/write to the SSD devices. The module come with 8 TB of storage. The module could be configured in different RAID type configuration depending on the OS.

The XMC645 has PCIe x8 Gen4 to the host and PCIe x4 Gen3 to each of the SSD modules. The module comes in conduction cool or convection cool.



Figure 1: XMC645

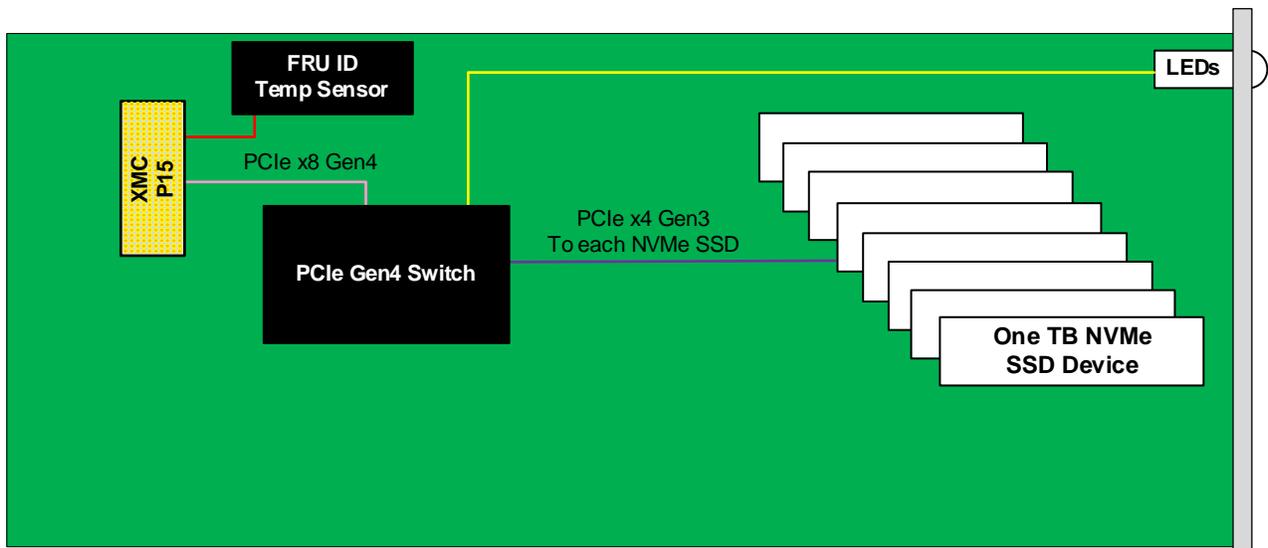


Figure 2: XMC645 Functional Block Diagram

# Specifications

Architecture	
<b>Physical</b>	<b>Dimensions</b> Single-Width, per VITA 42.0 Specification
<b>Type</b>	<b>XMC Storage</b> 8 TB of NVMe SSD
Standards	
<b>XMC</b>	<b>Type</b> Storage
<b>Module Management</b>	<b>Sensors</b> FRU info and Temp Sensor
<b>PCIe</b>	<b>Lanes</b> PCIe x8 Gen4 to host
<b>Storage</b>	<b>SSD</b> PCIe x4 Gen3 to each SSD
Configuration	
<b>Power</b>	<b>XMC645</b> ~32W depending on the utilization
<b>Environmental</b>	<b>Temperature</b> See <a href="#">Ordering Options</a> and <a href="#">Environmental Spec Sheet</a>
<b>Front Panel</b>	<b>Interface Connectors</b> Micro USB connector for MGT RS-232
	<b>LEDs</b> Activity
<b>Software Support</b>	<b>Operating System</b> Linux, Windows, and VxWorks
Other	
<b>MTBF</b>	MIL Hand book 217-F@ TBD hrs
<b>Certifications</b>	Designed to meet FCC, CE and UL certifications, where applicable
<b>Standards</b>	VadaTech is certified to both the ISO9001:2015 and AS9100D standards
<b>Warranty</b>	Two (2) years, see <a href="#">VadaTech Terms and Conditions</a>

## INTEGRATION SERVICES AND APPLICATION-READY PLATFORMS

VadaTech has a full ecosystem of OpenVPX, ATCA and MTCA products including chassis platforms, shelf managers, AMC modules, Switch and Payload Boards, Rear Transition Modules (RTMs), Power Modules, and more. The company also offers integration services as well as pre-configured Application-Ready Platforms. Please contact VadaTech Sales for more information.

# Ordering Options

## XMC645 – AB0-000-0HJ

<b>A = Storage</b>		
0 = 8 TB Total 1 = Reserved 2 = Reserved 3 = Reserved		
<b>B = XMC Connectors</b>		<b>H = Environmental</b>
0 = VITA 42 1 = VITA 61		See <a href="#">Environmental Specification</a>
		<b>J = Conformal Coating</b>
		0 = No coating 1 = Humiseal 1A33 Polyurethane 2 = Humiseal 1B31 Acrylic

## Environmental Specification

Option H	Air Cooled		Conduction Cooled		
	H = 0	H = 1	H = 2	H = 3	H = 4
<b>Operating Temperature</b>	AC1* (0°C to +55°C)	AC3* (-40°C to +70°C)	CC1* (0°C to +55°C)	CC3* (-40°C to +70°C)	CC4* (-40°C to +85°C)
<b>Storage Temperature</b>	C1* (-40°C to +85°C)	C3* (-50°C to +100°C)	C1* (-40°C to +85°C)	C3* (-50°C to +100°C)	C3* (-50°C to +100°C)
<b>Operating Vibration</b>	V2* (0.04 g2/Hz max)	V2* (0.04 g2/Hz max)	V3* (0.1 g2/Hz max)	V3* (0.1 g2/Hz max)	V3 (0.1 g2/Hz max)
<b>Storage Vibration</b>	OS1* (20g)	OS1* (20g)	OS2* (40g)	OS2* (40g)	OS2* (40g)
<b>Humidity</b>	95% non-condensing	95% non-condensing	95% non-condensing	95% non-condensing	95% non-condensing

**Notes:**

\*Nomenclature per ANSI/VITA 47. Contact local sales office for conduction cooled (H = 2, 3, 4).

## Related Products

VPX516



3U FPGA carrier for FPGA Mezzanine Card (FMC) per VITA 46 and VITA 57  
Xilinx Virtex-7 690T FPGA in FFG-1761 package  
High-performance clock jitter cleaner

VPX592



3U FPGA carrier for FMC per VITA 46 and VITA 57  
Xilinx Kintex UltraScale™ XCKU115 FPGA  
High-performance clock jitter cleaner

VPX599



Xilinx Kintex UltraScale™ XCKU115 FPGA  
Dual ADC 12-bit @ 6.4 GSPS  
Dual DAC 16-bit @ 12 GSPS (AD9162 or AD9164)

# Contact

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- Accelerated deployment
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