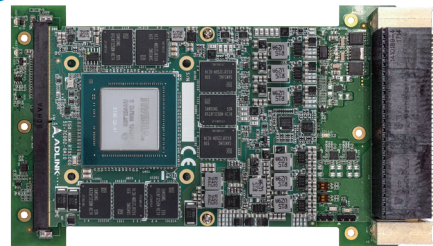


# Rugged SOSA-aligned 3U VPX NVIDIA GPGPU Blade

## VPX3-MXM/RTX5000

## Datasheet

New



### Features

- NVIDIA Turing architecture TU104 GPU with up to 3072 CUDA cores
- Up to 16GB GDDR6 Memory with NVIDIA GPUDirect™ DMA technology
- PCIe x16 Gen3 configurable to P1 (default is PCIe x8 Gen3)
- Four DisplayPort 1.4 or four HDMI 2.0 outputs (dependent on product SKU)

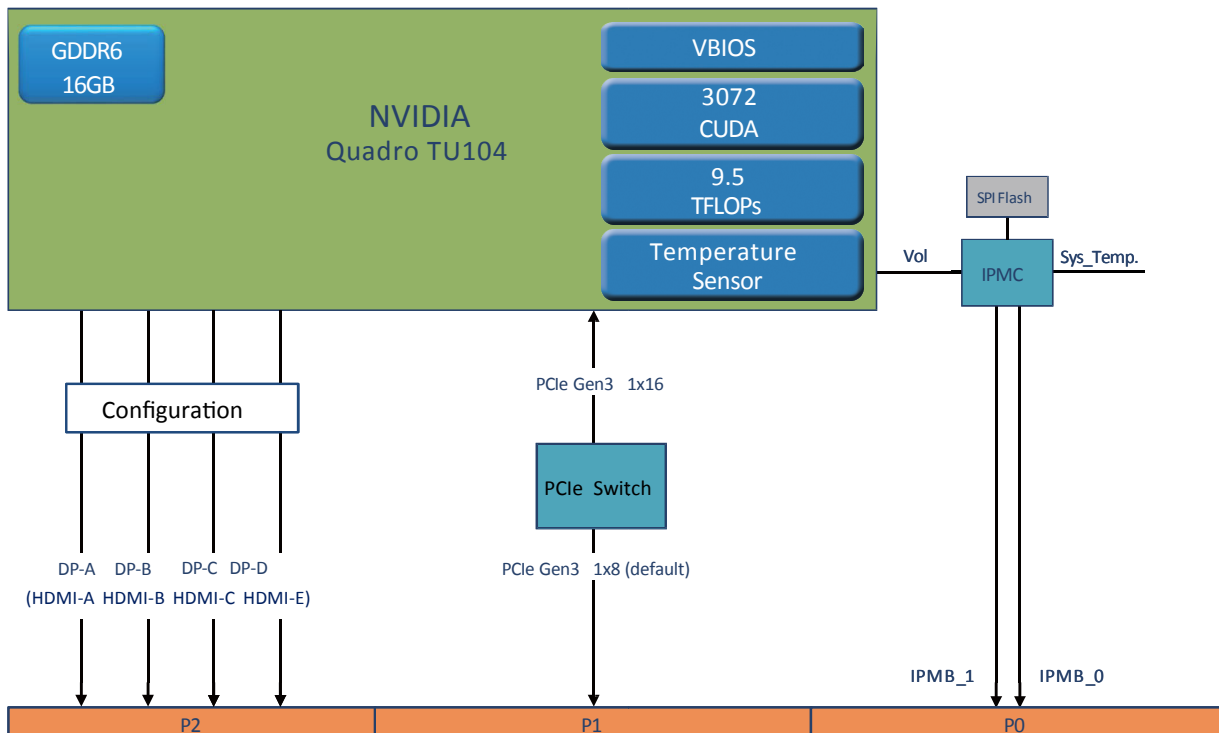
### Specifications

GPU	NVIDIA Turing RTX5000, 9.4 TFLOPs
CUDA	VPX3-RTX5000, 3072 CUDA cores
Memory	VPX3-RTX5000: 16GB GDDR6; 256-bit width
BIOS	NVIDIA VBIOS
Graphics Support	Open GL 4.6 Open CL 1.2 DirectX® 12 H/W encode/decode H.265 (HEVC), H.264 (AVC)
VITA Standards	VITA 46.0 VPX Base Standard VITA 46.4 PCI Express on VPX Fabric Connector VITA 48.0 Ruggedized Enhanced Design Implementation Mechanical Base Specification VITA 65 OpenVPX Architecture Framework for VPX
OpenVPX Profiles	Module Profile: MOD3-PER-2F-16.3.1-3 Slot Profile: SLT3-PER-2F-14.3.1  Support SOSA slot profile: (PCIex8): - SLT3-PAY-1F1U1S1S1U1U2F1H-14.6.11-n Payload Slot Profile, P2 depopulated - SLT3-PAY-1F1U1S1S1U1U4F1J-14.6.13-n Payload Slot Profile, P2 depopulated - SLT3-PAY-2F2U-14.2.3 Legacy Payload Slot Profile  For PCIe X8 & X4 support profile: - SLT3-PAY-1D-14.2.6 - SLT3-PAY-2F-14.2.7

## Specifications

Connectivity	Graphics	Four DisplayPort 1.4 or HDMI 2.0 outputs to P2
	PCI Express	PCIe x8 Gen3 to P1 (configurable to PCIe x16 Gen3)
OS Support	Windows 10 64-bit Linux and RTOS by request	
Miscellaneous	LED	Status LED
	Reset Button	Board reset button on front panel
Mechanical & Environmental	Form Factor	3U VPX, conduction-cooled, 0.85" pitch (VITA 48.1)
	Operating Temperature	-40°C to +85°C at wedge locks (VITA47.0, ECC4-CC4)
	Storage Temp.	-55°C to +105°C
	Relative Humidity	95% non-condensing
	Vibration	Random: 12Grms, 5Hz to 2000Hz (VITA47.0, ECC4-V3) Sinusoidal: 5G, 20Hz to 2000Hz
	Shock	40G, 11ms (VITA47.0, ECC4-OS2)
	Altitude	60,000 feet, operating
EMI/EMC	CE (EN555032 / EN55035); FCC Part 15B Class A	

## VPX3-RTX5000-STD Block Diagram



## Ordering Information

### GPGPU Blades

VPX3-MXM/RTX5000, DP output, SOSA-aligned, ETT, CC	3U VPX GPU blade with MXM Module RTX5000, PCIe x16 Gen3, 4x DisplayPort, SOSA-aligned, conformal coating & ETT, -40 to +70°C, Conduction-cooled
VPX3-MXM/RTX5000, DP output, ETT, CC	3U VPX GPU blade with MXM Module RTX5000, PCIe x16 Gen3, 4x DisplayPort, conformal coating & ETT, -40 to +70°C, Conduction-cooled
VPX3-MXM/RTX5000, HDMI output, ETT, CC	3U VPX GPU blade with MXM Module RTX5000, PCIe x16 Gen3, 4x HDMI, conformal coating & ETT, -40 to +70°C, Conduction-cooled.

### Accessories

VPX3-RMXMDP	RTM for VPX3-MXM, provides 4x DisplayPort outputs
VPX3-RMXMHDMI	RTM for VPX3-MXM, provides 4x HDMI outputs

