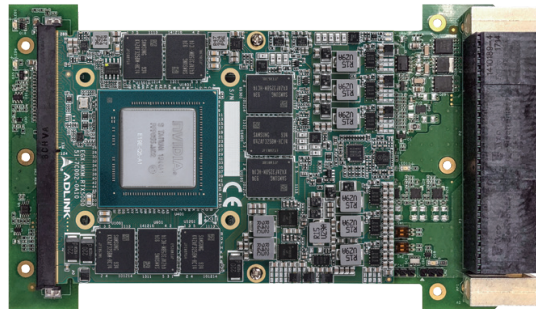


Rugged SOSA-aligned 3U VPX NVIDIA GPGPU Blade

# VPX3-MXM/RTX5000

Datasheet

New



## Features

- NVIDIA® Quadro® RTX5000 embedded graphic, based on Turing™ architecture
- 3072 CUDA cores, 9.4 TFLOPS peak FP32 performance
- 16GB GDDR6 Memory with NVIDIA GPUDirect™ DMA technology
- Four Display Port 1.4 or four HDMI 2.0 outputs (dependent on product SKU)

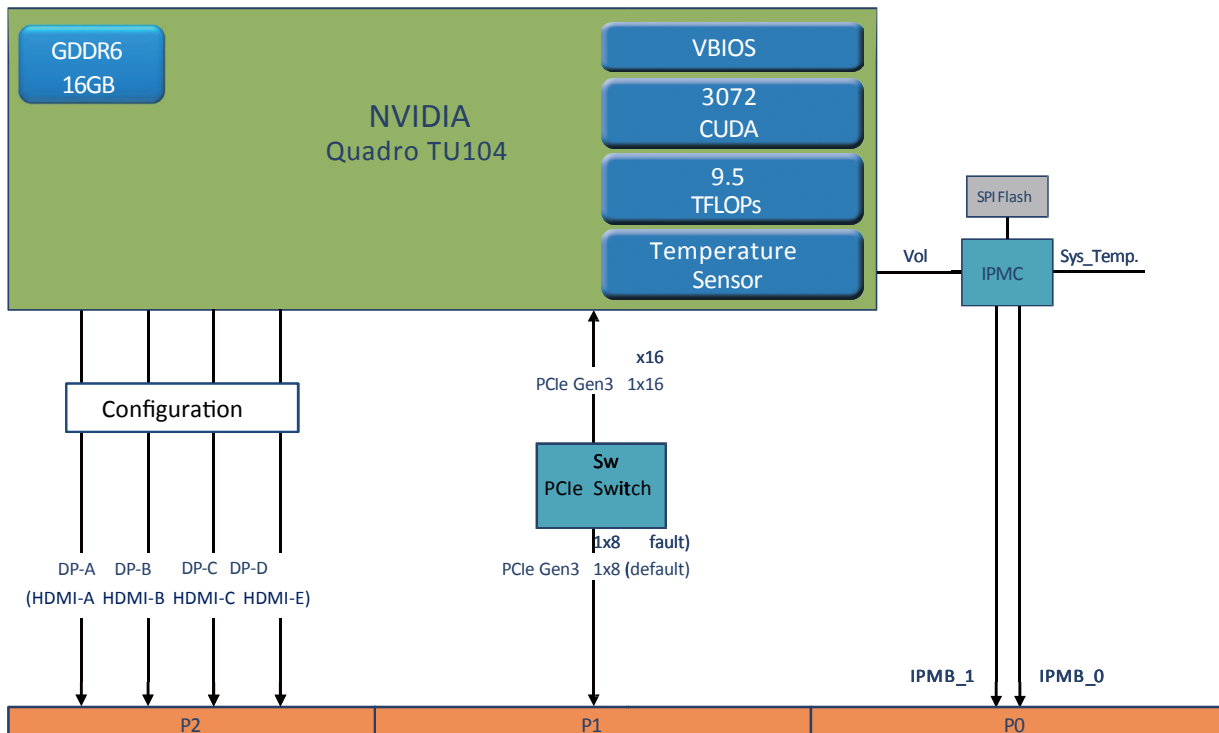
## Specifications

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: (PCIe x8): - 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, SOSA, COMM, ETT, CC	3U VPX GPGPU blade with MXM RTX5000 inside, 4x DP output, SOSA-aligned, conformal coating & ETT, -40 to +85°C, conduction-cooled, supports common PCIe clock mode
VPX3-MXM/RTX5000, DP, SOSA, non-COMM, ETT, CC	3U VPX GPGPU blade with MXM RTX5000 inside, 4x DP output, SOSA-aligned, conformal coating & ETT, -40 to +85°C, conduction-cooled, supports non-common PCIe clock mode
VPX3-MXM/RTX5000, DP, non-COMM, ETT, CC	3U VPX GPGPU blade with MXM RTX5000 inside, 4x DP output, conformal coating & ETT, -40 to +85°C, conduction-cooled, supports non-common PCIe clock mode
VPX3-MXM/RTX5000, HDMI, non-COMM, ETT, CC	3U VPX GPGPU blade with MXM RTX5000 inside, 4x HDMI output, conformal coating & ETT, -40 to +85°C, conduction-cooled, supports non-common PCIe clock mode

### Rear I/O

VPX3-RMXM-DP	RTM for VPX3-RTX5000-STD-R1 DP output provides four DisplayPort outputs
VPX3-RMXM-HDMI	RTM for VPX3-RTX5000-STD-R1 HDMI output provides four HDMI outputs



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