

# GraphiteVPX/CPU-TX2/TX2i/TX1

**Product Name:** GraphiteVPX/CPU-TX2/TX2i/TX1  
**Part Numbers:** VPG003

Connect Tech's GraphiteVPX/CPU-TX2/TX2i/TX1 is a VITA 65 compliant 3U VPX single board computer that brings the NVIDIA® Jetson™ TX2, TX2i or TX1 embedded computing platform to the VPX form factor.

This complete host solution delivers over a TeraFLOP of performance, with multiple USB 3.0 ports, multiple GbE channels, and 6 CSI camera interfaces to round out this 3U VPX solution.

The onboard PCIe Gen 3.0 switch allows for two x4 interfaces providing two additional downstream ports on the backplane.



Specifications		
Part	VPG003	
Form Factor	3U OpenVPX (Vita 64, VITA 48, VITA 65-compliant)	
Processor	CPU Model	NVIDIA® Jetson™ TX2/ TX2i/TX1
	CPU Cores	Quad 64bit ARM A57
	GPU	NVIDIA® Pascal™/Maxwell™
	CUDA Cores	256
Operating System	64bit Linux Ubuntu v14.04 LTS	
Memory	Technology	LPDDR4
	Capacities	TX2: 8GB OR TX1: 4GB
Operating Temperature	-40°C to +70°C (-40°F to +158°F)	
Power Requirements	12V (VS1), 3.3V (VS2), and 5V (VS3)	
Network	Two 10/100/1000 BASE-T ports	
USB	Up to two USB 3.0 (SuperSpeed) ports Up to three USB 2.0 (Hi-Speed) ports	
SATA	One SATA 2.0 Port	
Video	One HDMI 1.4 interface (Supports up to HDMI 2.0 UHD 4K [2160p] at 60Hz)	
Video Encode/Decode	4K @ 60Hz	
Camera	Six MIPI CSI 2.0 Camera interfaces	
Serial	One RS-232 Port (debug)	
Onboard Storage	16 GB eMMC	
Maximum Power	15W + Mezzanine Power	
Back Plane PCIe	Two x4 PCIe Gen3.0 Capable Backplane Ports	
LEDs	Power up status and PCIe Link speeds	
Thermal Interface	Conduction cooled	
RTM	RTG004	

## FEATURES

- ✓ 1 TFLOP, 256 CUDA cores with NVIDIA® Pascal™ or Maxwell™ GPU Architecture
- ✓ Conduction cooled
- ✓ The onboard PCIe Gen 3.0 switch supports two x4 port dataplane connections
- ✓ Extended Temperature Range -40°C to +70°C



Can be used with  
**RTG004 Graphite  
VPX CPU TX1 RTM**  
to aid in development