Connect Tech

TX2 INFERENCE SERVER
FOR NVIDIA® JETSON™ TX2

PART NUMBERS: UTX2AS-01, UTX2AS-02, UTX2AS-03, UTX2AS-04

Housed in a compact 1U chassis, the TX2 Inference Server can be outfitted with up to 24x NVIDIA Jetson TX2 modules.

Developed in partnership with USES Integrated Solutions, the TX2 Inference Server is an extremely low wattage, high performance deep learning inference server powered by the NVIDIA Jetson platform. Within the Server, three processor module carriers house up to eight Jetson TX2 modules each, and are all connected via a Gigabit Ethernet fabric through a specialized Managed Ethernet Switch developed by Connect Tech with 10G uplink capability (XDG201).

NVIDIA ELITE PARTNER

Includes Out of Band Management (OOBM) via an ARM-based SMARC module to control and monitor each of the Jetson TX2 modules.

FEATURES

✓ 24x 1 TFLOPS, 6,144 GPU CUDA cores with NVIDIA® Pascal™ or Maxwell™ architecture

✓ Operating Temperature: 0°C to +60°C (+32°F to +140°F)

✓ 2x 10G SFP+, 2x 1G SFP uplink capability; 3x 2.5" SATA drives

✓ 1U ATX style redundant power supply

SPECIFICATIONS

Processing Modules	• 24x NVIDIA® Jetson™ TX2 • GPU: 1 TFLOP/s 256-core with NVIDIA® Pascal™ or Maxwell™ architecture • CPU: 4x 64-bit ARM® A57 CPUs • Memory: 4GB LPDDR4 | 25.6 GB/s • Storage: 16GB eMMC	**Out-of-band Management Module**	• ARM based OOBM • Enabling Serial console access, power status monitoring, and power control (ON/OFF) to all 24x TX2 modules • OOBM accessible via Ethernet or via its own integrated USB-to-Serial console
Processor Module Carriers	• Each module carrier will allow up to 8x NVIDIA TX2 modules to be installed • 3x module carriers can be installed in the system for a total of 24 modules	**Internal Embedded Ethernet Switch**	• Vitesse/Microsemi VSC7448 Managed Ethernet Switch Engine (XDG201) • CPU: 500 MHz MIPS 24KEc • Memory: 4Gb DDR3 SDRAM • Storage: 128Mb Serial NOR Flash • Multi 1G/10G uplinks, with 24x 1G downstream module connections
Cooling	• Passive heatsinks installed on each TX2 module • Forced convection via fans on front and rear of system • Fans: Delta, 8x 40 x 40 x 28mm, 29 CFM / 2,400 in H2O static pressure	**Internal Array Communication**	• 24x Gigabit Ethernet / 1000BASE-T / IEEE 802.3ab channels • All TX2 modules can communicate to all other TX2 modules
External Uplink Connections	• 2x SFP+ 10G uplink • 2x SFP 1G uplink	**Misc / Additional IO**	1x 1GbE OOB management port via RJ-45; 1x USB UART management port; status LEDs
Input Power	100~240 VAC (dual redundant) with 650W output each	**Internal Storage**	Up to 3x 2.5" SATA hard drives (6TB total)
Operating Temperature	0°C to +60°C (+32°F to +140°F)	**Dimensions**	Standard 1U rackmount height (1.75 inch / 44.45mm) 25 inch / 635mm depth

RoHS