**TX2/TX1 Array Server**

Connect Tech and USES Integrated Solutions partnered to create a scalable array server, containing 24 NVIDIA® Jetson™ TX2/TX1 modules. Three array boards house eight Jetson TX2/TX1 modules each, all connected via a Gigabit Ethernet fabric through a specialized managed Ethernet Switch developed by Connect Tech with 10G uplink capability (XDG201).

The scalable array server also features Out of Band Management (OOBM) via an ARM-based SMARC module to control and monitor each of the Jetson TX2/TX1 modules. The OOBM has the ability to monitor their health/boot and remotely hard power on/off each module individually.

### Specifications - TX2/TX1 Array Server

| **Processing Modules** | 24x NVIDIA® Jetson™ TX2/TX1  
|  | • 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  
| **Processor Module Carriers** | Each Module Carrier will allow up to 8 x NVIDIA TX2/TX1 Modules to be installed  
|  | • 3 Processor Module Carriers can be installed in the system for a total of 24 modules  
| **Out-of-band Management Module** | ARM Based OOBM  
|  | • Enabling Serial console access, Power Status monitoring, and Power Control (ON/OFF) to all 24 x TX2/TX1 modules  
|  | • OOBM accessible via Ethernet or via its own integrated USB-to-Serial console  
| **Internal Storage** | Up to 3 x 2.5" SATA Hard Drives (6TB Total)  
| **Internal Array Communication** | 24 x Gigabit Ethernet / 1000BASE-T / IEEE 802.3ab channels  
|  | • All TX2/TX1 modules can communicate to all other TX2/TX1 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 24 1G Downstream Module Connections  
| **External Uplink Connections** | 2 x SFP+ 10G Uplink  
|  | 2 x SFP 1G Uplinks  
| **Misc / Additional IO** | 1 x 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  
| **Cooling** | Passive Heatsinks installed on each TX2/TX1 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  
| **Operating Temperature** | 0°C to +60°C  
| **Dimensions** | Standard 1U Rackmount Height (1.75 inch / 44.45mm)  
|  | 25 inch / 635mm Depth  
| **Limited Warranty** | Limited 1 Year Warranty  

**FEATURES**

- 24x 1 TFLOP/s, 6,144 GPU CUDA cores with NVIDIA® Pascal™ or Maxwell™ Architecture  
- 2x 10G SFP+, 2x 1G SFP Uplink Capability  
- 3x 2.5" SATA drives  
- 1U ATX style redundant power supply  
- Operating Temperature 0°C to +60°C  

**RoHS**

Specifications subject to change without notice.  
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CTIX-00466.0.01 - 2019-04-12