

## 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

<b>Processing Modules</b>	<ul style="list-style-type: none"> <li>24x NVIDIA® Jetson™ TX2/TX1</li> <li>• GPU: 1 TFLOP/s 256-core with NVIDIA® Pascal™ or Maxwell™ Architecture</li> <li>• CPU: 4x 64-bit ARM® A57 CPUs</li> <li>• Memory: 4GB LPDDR4   25.6 GB/s</li> <li>• Storage: 16GB eMMC</li> </ul>
<b>Processor Module Carriers</b>	<ul style="list-style-type: none"> <li>• Each Module Carrier will allow up to 8 x NVIDIA TX2/TX1 Modules to be installed</li> <li>• 3 Processor Module Carriers can be installed in the system for a total of 24 modules</li> </ul>
<b>Out-of-band Management Module</b>	<ul style="list-style-type: none"> <li>• ARM Based OOBM</li> <li>• Enabling Serial console access, Power Status monitoring, and Power Control (ON/OFF) to all 24 x TX2/TX1 modules</li> <li>• OOBM accessible via Ethernet or via its own integrated USB-to-Serial console</li> </ul>
<b>Internal Storage</b>	Up to 3 x 2.5" SATA Hard Drives (6TB Total)
<b>Internal Array Communication</b>	<ul style="list-style-type: none"> <li>• 24 x Gigabit Ethernet / 1000BASE-T / IEEE 802.3ab channels</li> <li>• All TX2/TX1 modules can communicate to all other TX2/TX1 modules</li> </ul>
<b>Internal Embedded Ethernet Switch</b>	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
<b>External Uplink Connections</b>	2 x SFP+ 10G Uplink 2 x SFP 1G Uplinks
<b>Misc / Additional IO</b>	1 x 1GbE OOB Management Port via RJ-45; 1x USB UART Management Port; Status LEDs
<b>Input Power</b>	100~240 VAC (Dual Redundant) with 650W output each
<b>Cooling</b>	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
<b>Operating Temperature</b>	0°C to +60°C
<b>Dimensions</b>	Standard 1U Rackmount Height (1.75 inch / 44.45mm) 25 inch / 635mm Depth

### 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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