

AGX Xavier™ Array Server



Product Name: AGX Xavier Array Server
Product Numbers: UAGXAS-01
UAGXAS-02
UAGXAS-03

Connect Tech and USES Integrated Solutions partnered to create a scalable array server containing 12 NVIDIA® Jetson AGX Xavier™ modules. Three array boards house four Jetson AGX Xavier modules each, all connected via a Gigabit Ethernet fabric through a specialized managed Ethernet Switch developed by Connect Tech with 10G uplink capability (XDG201).

This scalable array server includes Out of Band Management (OOBM) via an ARM-based SMARC module to control and monitor each of the Jetson AGX Xavier modules. The OOBM not only monitors the health/boot of each module, but can also remotely hard power (on/off) them individually.



Specifications - AGX Xavier Array Server

Processing Modules	<ul style="list-style-type: none"> 12 x NVIDIA® Jetson AGX Xavier™ GPU: 512-core Volta GPU with 64 Tensor Cores, 11 TFLOPS (FP16), 22 TOPS (INT8) CPU: 8-core Carmel ARM® v8.2 64-bit CPU, 8MB L2 + 4MB L3 Memory: 32GB 256-Bit LPDDR4x 136.5GB/s Storage: 32GB eMMC 5.1
Processor Module Carriers	<ul style="list-style-type: none"> Each Module Carrier will allow up to 4 x NVIDIA Jetson AGX Xavier Modules to be installed 3 Processor Module Carriers can be installed in the system for a total of 12 modules
Out-of-band Management Module	<ul style="list-style-type: none"> ARM Based OOBM Enabling Serial console access, Power Status monitoring, and Power Control (ON/OFF) to all 12 x AGX Xavier modules OOBM accessible via Ethernet or via its own integrated USB-to-Serial console
Internal Storage	Each AGX Xavier Module has its own M.2 NVMe interface (optional)
Internal Array Communication	<ul style="list-style-type: none"> 12 x Gigabit Ethernet / 1000BASE-T / IEEE 802.3ab channels All AGX Xavier modules can communicate to all other AGX Xavier modules
Internal Embedded Ethernet Switch	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 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	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 +50°C (+32°F to +122°F)
Dimensions	Standard 1U Rackmount Height (1.75 inch / 44.45mm) 25 inch / 635mm Depth
Limited Warranty	Limited 1 Year Warranty

FEATURES

- ✓ 12 x 11 TFLOP/s, 512-core Volta GPU with 64 Tensor Cores
- ✓ 2x 10G SFP+, 2x 1G SFP Uplink Capability
- ✓ Up to 12 x M.2 NVMe
- ✓ 1U ATX style redundant power supply
- ✓ Operating Temperature 0°C to + 50°C

RoHS

Specifications subject to change without notice.
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