



## GPU-Accelerated Machine Learning and Inferencing Servers Bring Flexibility and Cost Efficiency to High-Powered Computing



Developed in partnership with USES Integrated Solutions, the AGX Orin Inference Server is an extremely low wattage, high performance AI workstation powered by the NVIDIA Jetson AGX Orin 64GB module. Running NVIDIA's most powerful deep-learning software libraries, this inference server solves the challenge of deploying edge solutions at scale. The on-board 12x Jetson AGX Orin modules are all connected by a Gigabit Ethernet fabric through a specialized Managed Ethernet Switch with 10G uplink capability.

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

### FEATURES

- ✓ 12x 275 TOPS, 2048-core NVIDIA® Ampere™ GPU and 64 Tensor Cores
- ✓ 4x 10G SFP+ uplink capability
- ✓ Operating Temperature: 0°C to +50°C (+32°F to +122°F)
- ✓ 2U ATX style redundant power supply
- ✓ Up to 2TB of NVMe storage per module



### SPECIFICATIONS

<b>Processing Modules</b>	<ul style="list-style-type: none"> <li>12x NVIDIA® Jetson AGX Orin™</li> <li>GPU: 2048-core CUDA GPU with 64 Tensor Cores, 11 TFLOPS (FP16), 275 TOPS (INT8)</li> <li>CPU: 12-core Cortex ARM v8.2 64-bit CPU, 3MB L2 + 6MB L3</li> <li>Memory: 64GB 256-bit LPDDR5   204.8 GB/s</li> <li>Storage: 64 GB eMMC 5.1</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 12x AGX Orin modules</li> <li>OOBM accessible via Ethernet or via its own integrated USB-to-Serial console</li> </ul>
<b>Processor Module Carriers</b>	<ul style="list-style-type: none"> <li>Each module carrier will allow up to 4x NVIDIA Jetson AGX Orin modules to be installed</li> <li>3x module carriers can be installed in the system for a total of 12 modules</li> </ul>	<b>Internal Embedded Ethernet Switch</b>	<ul style="list-style-type: none"> <li>Vitesse/Microsemi SparX-5i VSC7558TSN-V/5CC Managed Ethernet Switch Engine (XDG205)</li> <li>CPU: 1 GHz VCore</li> <li>Memory: 8Gb DDR4 SDRAM</li> <li>Storage: 1Gbit Serial NOR Flash</li> <li>Multi 10G uplinks, with 12x 1G downstream</li> <li>Complete TSN feature set (Time-Sensitive Networking)</li> </ul>
<b>Cooling</b>	<ul style="list-style-type: none"> <li>Forced convection via fans on front and rear of system</li> <li>Fans: Delta, 5x 70 x 70 x 28 mm, 75 CFM / 2,400 in H2O static pressure</li> </ul>	<b>Internal Array Communication</b>	<ul style="list-style-type: none"> <li>12x Gigabit Ethernet / 1000BASE-T / IEEE 802.3ab channels</li> <li>All AGX Orin modules can communicate to all other AGX Orin modules</li> </ul>
<b>External Uplink Connections</b>	<ul style="list-style-type: none"> <li>4x SFP+ 10G uplink</li> </ul>	<b>Misc / Additional IO</b>	<ul style="list-style-type: none"> <li>1x 1GbE OOB management port via RJ-45; 1x USB UART management port; status LEDs</li> </ul>
<b>Input Power</b>	100~240 VAC (dual redundant) with 1000W output each	<b>Internal Storage</b>	Each AGX Orin module has its own M.2 NVMe interface (optional)
<b>Operating Temperature</b>	0°C to +50°C (+32°F to +122°F)	<b>Dimensions</b>	Standard 2U rackmount height (3.5 inch / 88.9mm) 25 inch / 635mm Depth



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