



WORLD'S FIRST NEBS LEVEL 3 V100 GPU SERVER

Delivering 2,560 NVIDIA GPU Cores
for 5G Edge AI & VR Innovation

Supermicro has announced an industry-first 1U NEBS (Network Equipment Building System) Level 3 certified system with up to four NVIDIA V100 or V100S Tensor Core GPUs. The new server system enables the latest AI, AR/VR, transcoding, gaming, and other high-compute workloads with low latency requirements in the telecom environment.

WHAT IS NEBS?

Network Equipment Building System (NEBS) consists of a number of guidelines and standards for designing equipment that can be deployed in challenging operating environments. This set of standards is integral to the telecommunications industry, where equipment (that can sometimes be sourced from many different locations) may need to endure varying and sometimes tough physical conditions. Initially developed at Bell Labs, the NEBS family of standards is designed to not only ensure the personal safety of equipment operators and service technicians, but also the protection of the facilities housing this equipment, all while ensuring the integrity of an overall telecommunications network. NEBS is used by large telecommunications providers and smaller local service providers alike, to ensure network integrity and safety standards.

BUILT IN AI ACCELERATION

This new system extends the operating temperature to 55 °C and meets the shock and vibration, flame resistance, and other stringent testing to complete the GR-1089 and GR-63 suite of tests required for full NEBS Level 3 compliance. The server's foundation of 2nd Generation Intel Xeon Scalable processors with built-in AI acceleration and Intel Optane persistent memory to utilize the NVIDIA GPUs to their fullest potential.

KEY FEATURES

Dual 2nd Gen Intel® Xeon® Scalable processors

Up to 3TB 3DS DDR4 Registered ECC Memory

4x PCIe 3.0x16 FHFL slots
2x PCIe 3.0x16 LP slots

1x Flexible SIOM card support

2x Hot Swap 2.5" SAS/SATA drive bays
2x Internal 2.5" SATA drive bays



Carrier-grade Telco/5G server

AI inferencing, AR and VR

Virtualization

Cloud Computing

ABOUT BIOS IT

BIOS IT is a global design house, systems builder and integrated solution provider for enterprise performance computing. We construct bespoke clusters and appliances by hand picking the best components and newest technologies based on specific customer goals. We support well-known organisations at the top of their research fields, across science, engineering, academia and finance disciplines. Our comprehensive range of products and services include: high-performance enterprise servers, storage and networking, on-premise or in the cloud, with associated services, support, hosting and software.

This design allows mobile operators to upgrade their systems with higher-performance GPUs to accelerate voice and data traffic, as well as provide new edge applications and services, using servers that meet their rigorous reliability standards.

The new 1U system is available with either redundant AC or DC Power Supply (1+1) options and has nine (9) 4cm fans to provide a robust cooling system that supports the extended temperature range. Also included are 2x 2.5" hot-swap SAS/SATA drive bays and 2x 2.5" internal drive bays. The system provides for secure SNMP v3, IPv6, and IPMI for management.

FROM EDGE TO THE CLOUD

This industry-first Supermicro 1U NEBS L3 system joins an extensive portfolio of GPU systems that support demanding workloads, requiring GPU acceleration capabilities. NEBS certification will help transform the telecommunications industry with powerful, feature-rich systems that provide intelligent and seamless connectivity from the Edge to the Cloud.

	V100 NEBS Certified 1U Server
CPU	2nd Gen Intel® Xeon® Scalable processors (Cascade Lake/Skylake)
GPU	Up to 4x NVIDIA V100 GPUs
MEMORY	Up to 3TB 3DS ECC DDR4-2933MHz over 12 DIMMs Supports Intel® Optane™ DCPMM
STORAGE	2 Hot-swap 2.5" SAS/SATA Drive bays, 2 Internal 2.5" SATA drive bays
FORM FACTOR	1U
EXPANSION SLOT	4X PCI-E 3.0 X16 (FHFL) SLOTS, 2X PCI-E 3.0 X16 (LP) SLOTS
NETWORK	2x 10GBase-T LAN ports via Intel X540
POWER SUPPLY	1300W -48Vdc single output redundant power supplies

CUSTOM CONFIGURATIONS ACROSS CORE COUNT, FORM FACTOR AND SUPPORT ARE ALSO AVAILABLE

For more information visit www.bios-it.com.



AMERICAS: 1-800-654-BIOS | EMEA: +44 (0) 203 178 6467 | APAC: +61 (0)2 8866 3343

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