SuperServers Optimized For NVIDIA® Tesla® GPUs

With the Fastest GPU to GPU Interconnections

Most Powerful Solution for Deep Learning Training

- Supermicro NVIDIA® HGX-2 Based Platform
- 16 V100 SXM3 GPUs (512GB GPU Memory)
- NVLink™ and NVSwitch™
- 16 NICs for GPUDirect RDMA
- 16 Hot-swap NVMe Drive Bays
- Fully configurable to order

SYS-9029GP-TNVRT

SYS-1029GQ-TVRT
4 NVIDIA® Tesla® V100 GPUs with NVIDIA® NVLink™

SYS-4029GP-TVRT
8 NVIDIA® Tesla® V100 GPUs with NVIDIA® NVLink™

www.supermicro.com/GPU
**PERFORMANCE**: Highest Parallel peak performance with NVIDIA Tesla V100 GPUs

**THROUGHPUT**: Best in class GPU-to-GPU bandwidth with a maximum speed of 300GB/s

**SCALABILITY**: Designed for direct interconnections between multiple GPU nodes

**FLEXIBILITY**: PCI-E 3.0 x16 for low latency I/O expansion capacity & GPU Direct RDMA support

**DESIGN**: Optimized GPU cooling for highest sustained parallel computing performance

**EFFICIENCY**: Redundant Titanium Level power supplies & intelligent cooling control

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**Model** | **SYS-1029GQ-TVRT** | **SYS-4029GP-TVRT**
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**CPU Support** | Dual Intel® Xeon® Scalable processors with 3 UPI up to 10.4GT/s | Dual Intel® Xeon® Scalable processors with 3 UPI up to 10.4GT/s
 | Supports up to 205W TDP CPU | Supports up to 205W TDP CPU

**GPU Support** | 4 NVIDIA Tesla V100 GPUs | 8 NVIDIA® Tesla® V100 GPUs
 | NVIDIA® NVLink™ GPU Interconnect up to 300GB/s | NVIDIA® NVLink™ GPU Interconnect up to 300GB/s
 | Optimized for GPU Direct RDMA | Optimized for GPU Direct RDMA

**Serverboard** | SUPER® X11DGQ | SUPER® X11DGO-T

**Chipset** | Intel® C621 | Intel® C621

**Memory Support** | Up to 1.5TB DDR4-2666MHz in 12 DIMM slots | Up to 3TB DDR4-2666MHz in 24 DIMM slots

**Storage Controller** | Intel® PCH for 4 SATA3 (6Gbps) ports | Intel® PCH for 8 SATA3 (6Gbps) ports

**Drive Bays** | 2 x 2.5" hot-swap SAS/SATA/NVME drive bay | 8 NVMe SSDs
 | 2 x 2.5" Internal Fixed drive bay | Supports up to 8 NVMe SSDs

**Expansion Slots** | 2 PCI-E 3.0 x16 (FHHL/LP) slots (From PLX for GPU Direct RDMA) | 4 PCI-E 3.0 x16 (LP) slots (GPU tray for GPU Direct RDMA)
 | 2 PCI-E 3.0 x16 (FHHL/LP) slots (From CPU) | 2 PCI-E 3.0 x16 (LP) slots (CPU tray)

**Networking** | Dual 10GBase-T Ethernet ports | Dual 10GBase-T Ethernet ports

**Onboard VGA** | 1 VGA port via ASPEED AST2500 BMC | 1 VGA port via ASPEED AST2500 BMC

**Management** | IPMI 2.0 with virtual media over LAN and KVM-over-LAN support | IPMI 2.0 + KVM with dedicated LAN, Intel® Node Manager, SUM, SPM, SSM, SuperDoctor® 5, Watchdog, Supermicro RSD

**Power Supply** | 2000W Titanium Level (96%+) efficiency redundant power supplies | 4x 2000W Redundant Titanium Level (96%+) high-efficiency power supplies with FC & PMBus

**Cooling System** | 7x 40mm heavy duty counter-rotating PWM fans with air shroud & optimal fan speed control | 8x 92mm heavy duty counter-rotating PWM fans with air shroud & optimal fan speed control

**Form Factor** | 1U Rackmount: 437 x 43 x 894mm (17.2" x 1.7" x 35.2") | 4U Rackmount: 447 x 178 x 805mm (17.6" x 7.0" x 31.7")