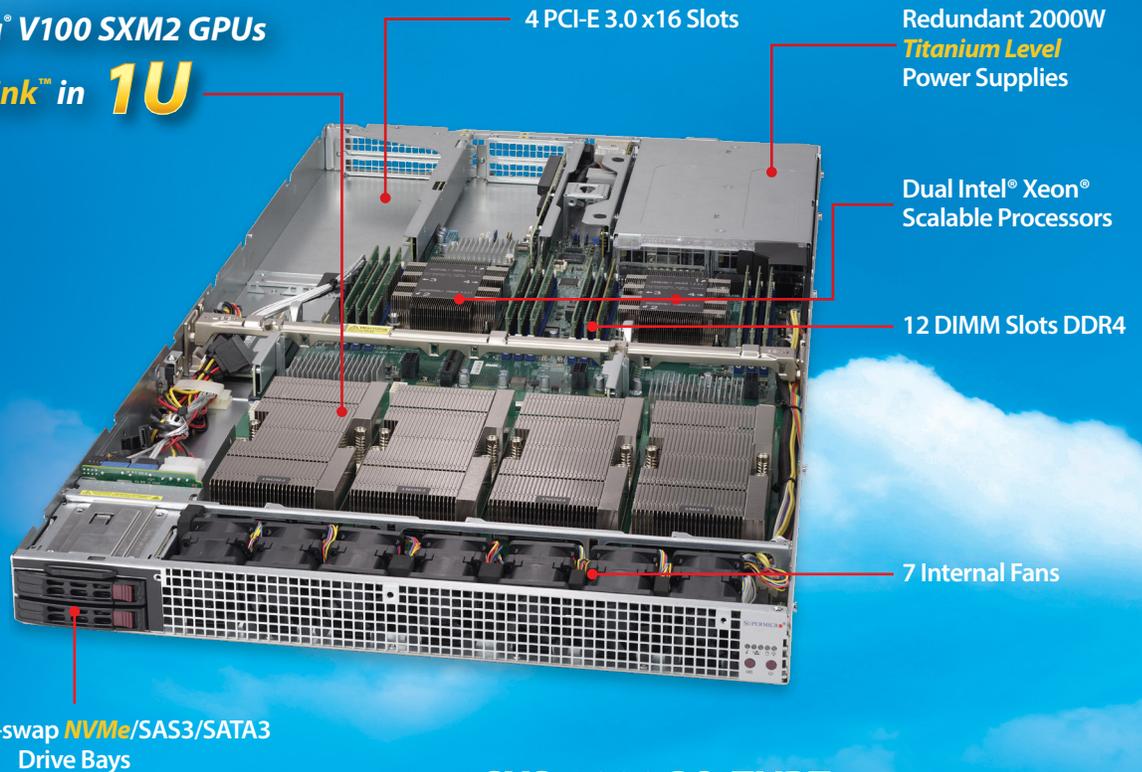# SuperServers Optimized For NVIDIA® Tesla® GPUs

4 NVIDIA® Tesla® V100 SXM2 GPUs
with NVIDIA® NVLink™ in **1U**

4 PCI-E 3.0 x16 Slots

Redundant 2000W *Titanium Level* Power Supplies

Dual Intel® Xeon® Scalable Processors

12 DIMM Slots DDR4

7 Internal Fans

2x 2.5" Hot-swap *NVMe*/SAS3/SATA3 Drive Bays

SYS-1029GQ-TVRT

4 NVIDIA® Tesla® V100 PCI-E GPUs in **1U**

Support up to:

- Dual Intel® Xeon® Scalable Processors
- **1.5TB** DDR4 memory
- Dual **10GBase-T** Ports
- Redundant **Titanium Level** (96%) Power Supplies

SYS-1029GQ-TRT

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March 2018

PERFORMANCE: Highest parallel peak performance up to 8 NVIDIA® Tesla® V100 GPUs (4U models)

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

SCALABILITY: Designed for pure direct interconnections between multiple GPU nodes

FLEXIBILITY: Up to four PCI-E 3.0 x16 and for low latency I/O expansion capability

DESIGN: No GPU preheating for highest sustained parallel performance and unsurpassed reliability

EFFICIENCY: Redundant Titanium Level power supplies & intelligent cooling control

Model	SYS-1029GQ-TVRT	SYS-1029GQ-TRT
CPU Support	Intel® Xeon® Processor Scalable Family (Skylake) with UPI up to 10.4 GT/s	Intel® Xeon® Processor Scalable Family (Skylake) with UPI up to 10.4 GT/s
GPU Support	• 4 NVIDIA® Tesla® V100 SXM2 GPUs • Optimized for GPUDirect RDMA • NVIDIA® NVLink™ GPU Interconnect up to 300GB/s	• 4 NVIDIA® Tesla® V100 PCI-E GPUs • GPU health monitoring with fan speed control
Serverboard	SUPER●® X11DGQ	SUPER●® X11DGQ
Chipset	Intel® C621	Intel® C621
Memory Support	Up to 1.5TB DDR4-2666MHz in 12 DIMM slots	Up to 1.5TB DDR4-2666MHz in 12 DIMM slots
Storage Controller	Intel® C621 controller for 4 SATA3 (6 Gbps) ports; RAID 0,1,5,10;	Intel® C621 controller for 4 SATA3 (6 Gbps) ports; RAID 0,1,5,10;
Drive Bays	2 x 2.5" hot-swap SAS/SATA/NVME drive bay; 2x 2.5" Internal Fixed drive bay	2 x 2.5" hot-swap SAS/SATA/NVME drive bay; 2x 2.5" Internal Fixed drive bay
Expansion Slots	4 x PCI-E x16 slots	• 4 PCI-E 3.0 x16 for 4 GPUs • 2 PCI-E 3.0 x16 (LP) slots
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 with virtual media over LAN and KVM-over-LAN support
Power Supply	2000W Titanium Level (96%+) efficiency redundant power supplies	2000W Titanium Level (96%+) efficiency redundant power supplies
Cooling System	7x 4cm heavy duty counter-rotating fans with air shroud & optimal fan speed control	9x 4cm heavy duty counter-rotating 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") ; Enclosure: 437 x 43 x 894mm (17.2" x 1.7" x 35.2")	1U Rackmount 437 x 43 x 894mm (17.2" x 1.7" x 35.2") ; Enclosure: 437 x 43 x 894mm (17.2" x 1.7" x 35.2")

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