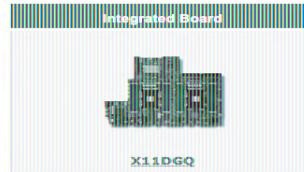
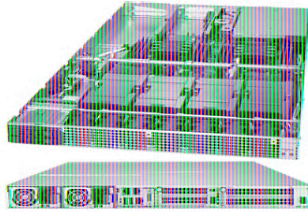


1U Dual Processor (Intel) System with 4 NVIDIA V100 GPUs



Views: | Angled View | Top View | Front View | Rear View |

Complete System Only: To maintain quality and integrity, this product is sold only as a completely-assembled system (with minimum 2 CPUs, 4 DIMMs, 2 GPUs installed). Use with 3 GPUs not recommended.

[Drivers & Utilities](#) |
 [BIOS](#) |
 [IPMI](#) |
 [Tested Memory](#) |
 [Drive Options](#) |
 [NVMe Options](#) |
 [Tested M.2 List](#) |
 [Manuals](#) |
 [OS Certification Matrix](#) |
 [Compatible GPU List](#)

Note: Image above may show a varied configuration of optional parts. Please refer to parts list for standard parts included.

Key Applications

- Edge Computi
- Micro Data Cer
- AI/ML, Deep Le
- Virtualization
- Cloud Comput

Key Features

1. Supports up to 4 SXM2 GPUs with NVIDIA® NVLI
2. Optimized for N
3. Dual Socket P (2nd Gen Intel® processors (Ca
4. 12 DIMMs; up to DDR4-2933MHz; Supports Intel®
5. 2 PCI-E 3.0 x16 2 PCI-E 3.0 x16
6. 2 Hot-swap 2.5" drive bays, 2 Int Optional NVMe
7. Support 1x M.2 Support M.2 SA
8. 2x 10GBase-T L
9. 7 Heavy duty 4c fans with air shr speed control
10. 2000W Redun Titanium Level

Specifications ^

Product SKUs	
SYS-1029GQ-TVRT	SuperServer 1029GQ-TVRT
Super X11DGQ	
CPU	
CPU	<ul style="list-style-type: none"> Dual Socket P (LGA 3647) 2nd Gen Intel® Xeon® Scalable Processors and Intel® Xeon® Scalable Processors*, 3 UPI up to 10.4GT/s Support CPU TDP up to 165W
Cores	Up to 28 Cores
Note	<p>* BIOS version 3.2 or above is required to support 2nd Gen Intel® Xeon® Scalable processors (codenamed Cascade Lake-R).</p> <p>Extended thermal solutions may be required to support CPUs higher than 165W TDP, please contact Supermicro Technical Support for additional information.</p>
GPU	
Supported GPUs	<ul style="list-style-type: none"> 4 SXM Socket Based NVIDIA V100 Compatible GPU list
CPU-GPU Interconnect	PCI-E Gen 3 x16 Switch CPU-GPU Interconnect
System Memory	
Memory Capacity	<ul style="list-style-type: none"> 12 DIMM slots Up to 3TB 3DS ECC DDR4-2933MHz¹ RDIMM/LRDIMM Supports Intel® Optane™ DCPMM^{1†}
Memory Type	2933/2666/2400/2133MHz ECC DDR4 RDIMM/LRDIMM
Note	¹ 2933MHz in two DIMMs per channel can be achieved by using memory purchased from Supermicro [†] Cascade Lake only. Contact your Supermicro sales rep for more info.
Onboard Options	
Chipset	Intel® C621 chipset
SATA	SATA3 (6Gbps) with RAID 0, 1, 5, 10
Network Connectivity	<ul style="list-style-type: none"> Intel® X540 Dual Port 10GBase-T Virtual Machine Device Queues reduce I/O overhead Supports 10GBASE-T, 100BASE-TX, and 1000BASE-T, RJ45 output
IPMI	<ul style="list-style-type: none"> Support for Intelligent Platform Management Interface v2.0 IPMI 2.0 with virtual media over LAN and KVM-over-LAN support
Graphics	ASPEED AST2500 BMC
I/O Connectors	
SATA	4 SATA3 (6Gbps) ports
LAN	<ul style="list-style-type: none"> 2 RJ45 10GBase-T ports 1 RJ45 Dedicated IPMI LAN port
USB	2 USB 3.0 ports (rear)
Video	1 VGA port
Serial Header	1 Fast UART 16550 header
System BIOS	
BIOS Type	AMI 32Mb SPI Flash ROM
Software	
Software	<ul style="list-style-type: none"> Intel® Node Manager IPMI 2.0 KVM with dedicated LAN SMM, SPM, SUM SuperDoctor® 5 Watch Dog
Power Configurations	ACPI / APM Power Management
PC Health Monitoring	
CPU	<ul style="list-style-type: none"> Monitors for CPU Cores, Chipset Voltages, Memory, 4+1 Phase-switching voltage regulator
FAN	<ul style="list-style-type: none"> Fans with tachometer monitoring Status monitor for speed control Pulse Width Modulated (PWM) fan connectors
Temperature	<ul style="list-style-type: none"> Monitoring for CPU and chassis environment Thermal Control for fan connectors

Chassis	
Form Factor	1U Rackmount
Model	CSE-118GQPTS-R2K
Dimensions and Weight	
Height	1.7" (43mm)
Width	17.2" (437mm)
Depth	<ul style="list-style-type: none"> 35.2" (894mm) 39.3" (997mm) with ra
Package	24" (H) x 8" (W) x 46"
Weight	<ul style="list-style-type: none"> Net Weight: 45 lbs (20) Gross Weight: 58 lbs (26)
Available Color	Black
Front Panel Features	
Buttons	<ul style="list-style-type: none"> Power On/Off button UID button
LEDs	<ul style="list-style-type: none"> Power LED Hard drive activity LED Network activity LEDs System Overheat LED UID LED
Expansion Slots	
PCI-Express	<ul style="list-style-type: none"> 4 PCI-E 3.0 x16 slots 2x GPU Direct RDMA
Drive Bays	
Hot-swap	<ul style="list-style-type: none"> 2 Hot-swap 2.5" SAS/ <p>Note: Can be upgrade of optional NVMe kit (p list below).</p>
Fixed	2 Internal 2.5" SATA d
M.2	<ul style="list-style-type: none"> Support 1x M.2 2242/ Support M.2 SATA anc
System Cooling	
Fans	7 Heavy duty 4cm cou optimal fan speed con
Power Supply	
2000W Redundant Power Supplies with PMBus	
Total Output Power	<ul style="list-style-type: none"> 1000W: 100 – 120Vac 1800W: 200 – 220Vac 1980W: 220 – 230Vac 2000W: 230 – 240Vac 2000W: 200 – 240Vac
Dimension (W x H x L)	73.5 x 40 x 265 mm
Input	<ul style="list-style-type: none"> 100-120Vac / 12.5-9.5A 200-220Vac / 10-9.5A 220-230Vac / 10-9.8A 230-240Vac / 10-9.8A 200-240Vac / 11.8-9.8
+12V	<ul style="list-style-type: none"> Max: 83.3A / Min: 0A (2) Max: 150A / Min: 0A (2) Max: 165A / Min: 0A (2) Max: 165.7A / Min: 0A Max: 165.7A / Min: 0A
12Vsb	Max: 2.1A / Min: 0A
Output Type	25 Pairs Gold Finger C
Certification	
RoHS and Environmental	
RoHS	RoHS Compliant
Environmental Spec.	<ul style="list-style-type: none"> Operating Temperature: 10°C – 35°C (50°F – 95°F) Non-operating Temper: -40°C to 60°C (-40°F to 140°F) Operating Relative Hu: 8% to 90% (non-con) Non-operating Relative Humidity: 5% to 95% (non-con)