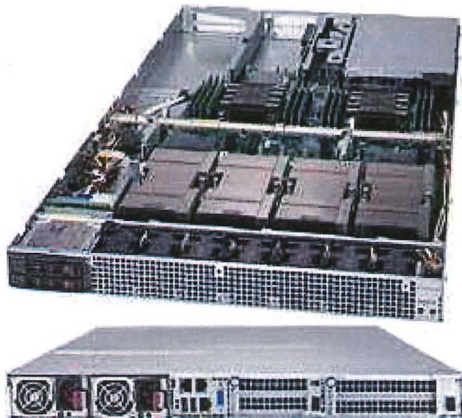


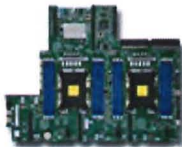
## Specifikace serveru

Kategorie	Produkt	Ks
Procesor	Intel Xeon Silver 4210 - 2,2GHz@9,60GT 13,75MB cache 10core,HT,85W,	2
Systém	GPU Server 1029GQ-TVRT 1U 2S-P, 4PCI-E16g3(SXM2-NV- Link),2x10GbE-T,2SFF,IPMI, 12DDR4 ,rPS	1
Paměť	16GB 2400MHz DDR4 ECC Registered	12
GPU výpočetní modul	nVidia Tesla Volta V100 (640TensorCores,32GB,PCI- E16g3,250W), pasivní chlazení	2
Ethernet	Síťová karta Intel X540 Dual-port 10GbE 10GBase-T na zákl. desce	1
Management	IPMI 2.0 modul s KVM-over-LAN na základní desce	1
Storage HDD/SSD 2,5"	SSD 480GB SATA3 6Gbps 2,5" 7mm	2
Zdroj	Redundantní zdroj	1

## SuperServer 1029GQ-TVRT (Complete System Only)



Integrated Board



X11DGQ

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](#) ▶ [Tested M.2 List](#) ▶ [NVMe Options](#) ▶ [Manuals](#) ▶ [OS Certification Matrix](#)  
▶ [Compatible GPU List](#) ▶ [Drive Options](#)

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

### Key Features

- Up to 4 NVIDIA® Tesla® V100 SXM2 GPUs
- Up to 300 GB/s GPU-to-GPU NVIDIA® NVLINK™
- Optimized for NVIDIA® GPUDirect™ RDMA

1. Dual Socket P (LGA 3647) support 2nd Gen Intel® Xeon® Scalable processors (Cascade Lake/Skylake)‡
2. 12 DIMMs; up to 3TB 3DS ECC DDR4-2933MHz† RDIMM/LRDIMM, Supports Intel® Optane™ DCPMM††
3. 4 PCI-E 3.0 x16 slots
4. 2 Hot-swap 2.5" SAS/SATA drive bays, 2 Internal 2.5" SATA drive bays
5. Support 1x M.2 2242/2260/2280, Support M.2 SATA and NVMe
6. 2x 10GBase-T LAN ports via Intel X540
7. 7 Heavy duty 4cm counter-rotating fans with air shroud & optimal fan speed control
8. 2000W Redundant Power Supplies Titanium Level (96%)

## Specifications

**Product SKUs**

<b>SYS-1029GQ-TVRT</b>	■ SuperServer 1029GQ-TVRT (Black)
------------------------	-----------------------------------

**Motherboard****Super X11DGQ****Processor/Cache**

<b>CPU</b>	<ul style="list-style-type: none"> <li>■ Dual Socket P (LGA 3647)</li> <li>■ 2nd Gen Intel® Xeon® Scalable Processors and Intel® Xeon® Scalable Processors<sup>‡</sup>, 3 UPI up to 10.4GT/s</li> <li>■ Support CPU TDP up to 165W</li> </ul>
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<b>Cores</b>	■ Up to 28 Cores
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<b>Note</b>	<p><sup>‡</sup> BIOS version 3.2 or above is required to support 2nd Gen Intel® Xeon® Scalable processors (codenamed Cascade Lake-R).</p>
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Extended thermal solutions may be required to support CPUs higher than 165W TDP, please contact Supermicro Technical Support for additional information.

<b>GPU</b>	<ul style="list-style-type: none"> <li>■ 4 NVIDIA® Tesla® V100 SXM2 GPUs</li> <li>■ Up to 300GB/s GPU-to-GPU NVIDIA® NVLINK™</li> </ul>
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**System Memory**

<b>Memory Capacity</b>	<ul style="list-style-type: none"> <li>■ 12 DIMM slots</li> <li>■ Up to 3TB 3DS ECC DDR4-2933MHz<sup>†</sup> RDIMM/LRDIMM</li> <li>■ Supports Intel® Optane™ DCPMM<sup>††</sup></li> </ul>
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<b>Memory Type</b>	■ 2933 <sup>†</sup> /2666/2400/2133MHz ECC DDR4 RDIMM/LRDIMM
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<b>Note</b>	<p><sup>†</sup> 2933MHz in two DIMMs per channel can be achieved by using memory purchased from Supermicro</p> <p><sup>††</sup> Cascade Lake only. Contact your Supermicro sales rep for more info.</p>
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**On-Board Devices**

<b>Chipset</b>	■ Intel® C621 chipset
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<b>SATA</b>	■ SATA3 (6Gbps) with RAID 0, 1, 5, 10
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<b>Network Connectivity</b>	<ul style="list-style-type: none"> <li>■ Intel® X540 Dual Port 10GBase-T</li> <li>■ Virtual Machine Device Queues reduce I/O overhead</li> <li>■ Supports 10GBASE-T, 100BASE-TX, and 1000BASE-T, RJ45 output</li> </ul>
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<b>IPMI</b>	<ul style="list-style-type: none"> <li>■ Support for Intelligent Platform Management Interface v.2.0</li> <li>■ IPMI 2.0 with virtual media over LAN and KVM-over-LAN support</li> </ul>
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**Chassis**

<b>Form Factor</b>	■ 1U Rackmount
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<b>Model</b>	■ CSE-118GQPTS-R2K05P2
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**Dimensions and Weight**

<b>Height</b>	■ 1.7" (43mm)
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<b>Width</b>	■ 17.2" (437mm)
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<b>Depth</b>	<ul style="list-style-type: none"> <li>■ 35.2" (894mm)</li> <li>■ 39.3" (997mm) with rails</li> </ul>
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<b>Package</b>	■ 24" (H) x 8" (W) x 46" (D)
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<b>Weight</b>	<ul style="list-style-type: none"> <li>■ Net Weight: 45 lbs (20.41 kg)</li> <li>■ Gross Weight: 58 lbs (26.31 kg)</li> </ul>
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<b>Available Color</b>	■ Black
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**Front Panel**

<b>Buttons</b>	<ul style="list-style-type: none"> <li>■ Power On/Off button</li> <li>■ UID button</li> </ul>
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<b>LEDs</b>	<ul style="list-style-type: none"> <li>■ Power LED</li> <li>■ Hard drive activity LED</li> <li>■ Network activity LEDs</li> <li>■ System Overheat LED / Fan fail LED / UID LED</li> </ul>
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**Expansion Slots**

<b>PCI-Express</b>	■ 4 PCI-E 3.0 x16 slots
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**Drive Bays**

<b>Hot-swap</b>	<ul style="list-style-type: none"> <li>■ 2 Hot-swap 2.5" SAS/SATA drive bays</li> </ul> <p>Note: Can be upgraded to 2 U.2 NVMe drives by addition of optional NVMe kit (please see details in optional parts list below).</p>
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<b>Fixed</b>	■ 2 Internal 2.5" SATA drive bays
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<b>M.2</b>	<ul style="list-style-type: none"> <li>■ Support 1x M.2 2242/2260/2280</li> <li>■ Support M.2 SATA and NVMe</li> </ul>
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**System Cooling**

<b>Fans</b>	■ 7 Heavy duty 4cm counter-rotating fans with air shroud & optimal fan speed control
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**Power Supply**

2000W Redundant Power Supplies with PMBus
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<b>Graphics</b>	<ul style="list-style-type: none"> <li>ASPEED AST2500 BMC</li> </ul>
<b>Input / Output</b>	
<b>SATA</b>	<ul style="list-style-type: none"> <li>4 SATA3 (6Gbps) ports</li> </ul>
<b>LAN</b>	<ul style="list-style-type: none"> <li>2 RJ45 10GBase-T ports</li> <li>1 RJ45 Dedicated IPMI LAN port</li> </ul>
<b>USB</b>	<ul style="list-style-type: none"> <li>2 USB 3.0 ports (rear)</li> </ul>
<b>Video</b>	<ul style="list-style-type: none"> <li>1 VGA port</li> </ul>
<b>Serial Header</b>	<ul style="list-style-type: none"> <li>1 Fast UART 16550 header</li> </ul>
<b>System BIOS</b>	
<b>BIOS Type</b>	<ul style="list-style-type: none"> <li>AMI 32Mb SPI Flash ROM</li> </ul>
<b>Management</b>	
<b>Software</b>	<ul style="list-style-type: none"> <li>Intel® Node Manager</li> <li>IPMI 2.0</li> <li>KVM with dedicated LAN</li> <li>SSM, SPM, SUM</li> <li>SuperDoctor® 5</li> <li>Watch Dog</li> </ul>
<b>Power Configurations</b>	<ul style="list-style-type: none"> <li>ACPI / APM Power Management</li> </ul>
<b>PC Health Monitoring</b>	
<b>CPU</b>	<ul style="list-style-type: none"> <li>Monitors for CPU Cores, Chipset Voltages, Memory.</li> <li>4+1 Phase-switching voltage regulator</li> </ul>
<b>FAN</b>	<ul style="list-style-type: none"> <li>Fans with tachometer monitoring</li> <li>Status monitor for speed control</li> <li>Pulse Width Modulated (PWM) fan connectors</li> </ul>
<b>Temperature</b>	<ul style="list-style-type: none"> <li>Monitoring for CPU and chassis environment</li> <li>Thermal Control for fan connectors</li> </ul>

<b>Total Output Power</b>	<ul style="list-style-type: none"> <li>1000W: 100 – 120Vac</li> <li>1800W: 200 – 220Vac</li> <li>1980W: 220 – 230Vac</li> <li>2000W: 230 – 240Vac</li> <li>2000W: 200 – 240Vac (UL/CUL only)</li> </ul>
<b>Dimension (W x H x L)</b>	<ul style="list-style-type: none"> <li>73.5 x 40 x 265 mm</li> </ul>
<b>Input</b>	<ul style="list-style-type: none"> <li>100-120Vac / 12.5-9.5A / 50-60Hz</li> <li>200-220Vac / 10-9.5A / 50-60Hz</li> <li>220-230Vac / 10-9.8A / 50-60Hz</li> <li>230-240Vac / 10-9.8A / 50-60Hz</li> <li>200-240Vac / 11.8-9.8A / 50-60Hz (UL/cUL only)</li> </ul>
<b>+12V</b>	<ul style="list-style-type: none"> <li>Max: 83.3A / Min: 0A (100-120Vac)</li> <li>Max: 150A / Min: 0A (200-220Vac)</li> <li>Max: 165A / Min: 0A (220-230Vac)</li> <li>Max: 166.7A / Min: 0A (230-240Vac)</li> <li>Max: 166.7A / Min: 0A (200-240Vac) (UL/cUL only)</li> </ul>
<b>12Vsb</b>	<ul style="list-style-type: none"> <li>Max: 2.1A / Min: 0A</li> </ul>
<b>Output Type</b>	<ul style="list-style-type: none"> <li>25 Pairs Gold Finger Connector</li> </ul>
<b>Certification</b>	  <ul style="list-style-type: none"> <li>Titanium Level [ <a href="#">Test Report</a> ]</li> </ul>

**Operating Environment**

<b>RoHS</b>	<ul style="list-style-type: none"> <li>RoHS Compliant</li> </ul>
<b>Environmental Spec.</b>	<ul style="list-style-type: none"> <li>Operating Temperature: 10°C ~ 35°C (50°F ~ 95°F)</li> <li>Non-operating Temperature: -40°C to 60°C (-40°F to 140°F)</li> <li>Operating Relative Humidity: 8% to 90% (non-condensing)</li> <li>Non-operating Relative Humidity: 5% to 95% (non-condensing)</li> </ul>

## Parts List

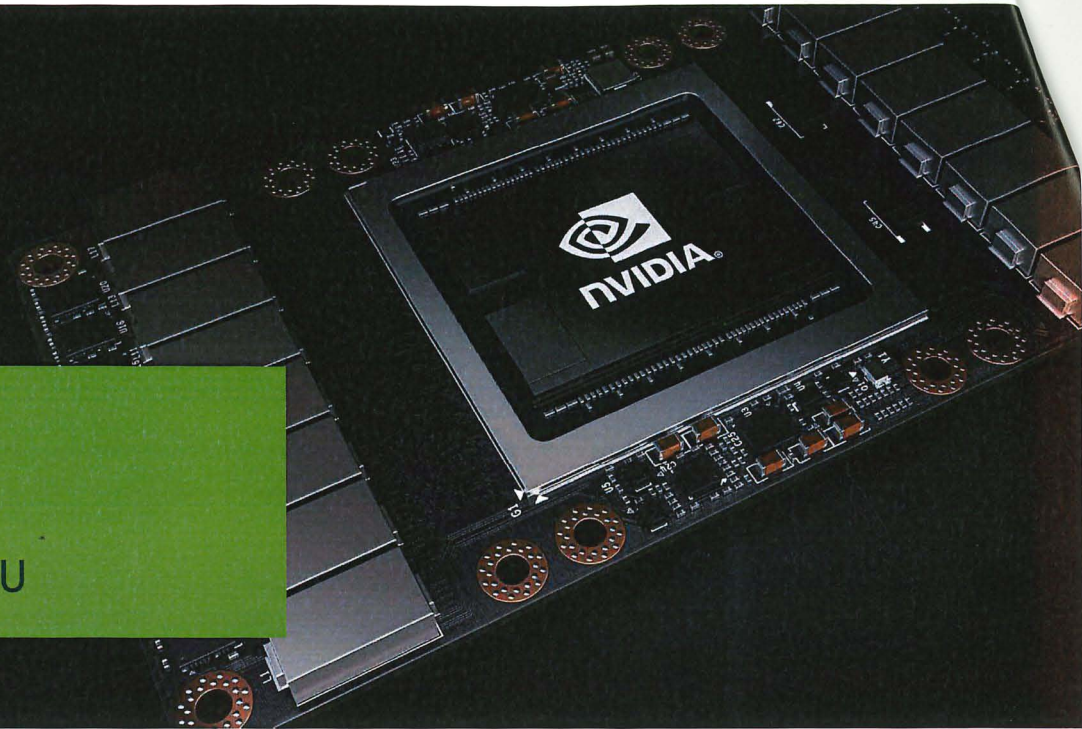
### Parts List - (Items Included)

	Part Number	Qty	Description
Motherboard / Chassis	MBD-X11DGQ	1	Super X11DGQ Motherboard
	CSE-118GQPTS-R2K05P2	1	CSE-118GQPTS-R2K05P2 Chassis
Add-on Card / Module	AOM-PIO-I2XT-P	1	AOM-PIO-I2XT
Add-on Card / Module	AOM-SXMV-P	1	AOM housing Volta SXM 2.0 modules in conjunction with X11DGQ DP MB, HF, RoHS
Backplane	BPN-SAS3-118GQE	1	2-port 1U SAS3 12Gbps backplane, support up to 2x 2.5-inch SAS3/SATA3 HDD/SSD
Cable 1	CBL-0484L	4	SATA, INT, ROUND, ST-ST, 55CM, 30AWG
Cable 2	CBL-PWEX-1025	3	GPU, 2x4F/RA/CPU to 2x4F/RA/CPU, P4.2, 6CM, 17AWG, 8A/pin, -25~85C, RoHS
Cable 3	CBL-PWEX-1028	1	GPU, 2x4F/CPU to 2x4F/CPU, P4.2, 30CM, 16AWG, 10A/pin, -40~105C
Cable 4	CBL-SAST-0934-12	4	Oculink-Oculink X8 Cable 50cm 34AWG, RoHS
Riser Card	RSC-G-A66-X1	1	1U LHS Active Rear Riser card with two PCI-E x16 Slot, HF, RoH
Riser Card	RSC-GN2-66	1	1U Passive LHS GPU Riser Card with two NVMe ports and two PC
Heatsink / Retention	SNK-P0067PS	2	1U Passive CPU Heat Sink for X11 Purley Platform Equipped with a Narrow Retention Mechanism
Heatsink / Retention	SNK-P4004V	4	1U Passive GPU Heat Sink for NVIDIA SXM2 Module Equipped with Pascal or Volta GPU
Power Supply	PWS-2K05A-1R	2	1U 2000W Redundant Titanium Power Supply W/PMbus 73.5x40x265mm, RoHS/REACH
FAN 1	FAN-0163L4	7	40x40x56 mm, 23.3K-20.3K RPM, Counter-rotating Fan
Rear Window	MCP-240-11807-0N	1	SC118GQE Rear Window for 2x PCI-FL or 4th GPU
Rail Set	MCP-290-11809-0N	1	Rail set, Quick/Quick, Auto Latch, travel 535mm Short Version, Post to Post 685mm

### Optional Parts List

	Part Number	Qty	Description
Add-on card for internal M.2 NVMe	AOC-SLG3-2M2*	-	Low Profile PCI-E x8 add-on card supports 2 PCI-E 3.0 x4 M-Key M.2 NVMe Modules * AOC to be installed in rear top PCIe slots.
AOC-S3008L-L8i (SAS3)	CBL-SAST-0699	1	Mini SAS HD to 4 SATA 12G
AOC-S3108L-H8IR-16DD (SAS3)	CBL-SAST-0699	1	Mini SAS HD to 4 SATA 12G
AOC-S3108L-H8IR (SAS3)	CBL-SAST-0699	1	Mini SAS HD to 4 SATA 12G
Super Cap for LSI 3108	BKT-BBU-BRACKET-05	1	Mounting Bracket for LSI BBUs
	BTR-TFM8G-LSICVM02	1	LSI Super Cap
SXM2 GPU Dummy	MCP-120-11812-0N	1	Optional SXM2 GPU dummy
U.2 NVMe Kit	BPN-NVMe3-118GQE	1	NVMe Backplane
	CBL-SAST-0935-12	1	Oculink cable x8
	MCP-220-00121-0B	2	NVMe HS tray
TPM	AOM-TPM-9670V	-	SPI capable vertical TPM 2.0 provisioned for client, RoHS
Intel VROC RAID Key	AOC-VROCINTMOD	1	Intel VROC, RAID 0, 1, 5, 10 (Intel SSD Only)
	AOC-VROCSTNMOD	1	Intel VROC Standard, RAID 0, 1, 10
	AOC-VROCPREM0D	1	Intel VROC Premium, RAID 0, 1, 5, 10

Global Services & Support	<a href="#">OS4HR3/2/1</a>	-	3/2/1-year onsite 24x7x4 service
	<a href="#">OSNBD3/2/1</a>	-	3/2/1-year onsite NBD service
Software	<a href="#">SFT-OOB-LIC</a> • <a href="#">eStore</a>	1	OOB Management Package (per node license)
Software	<a href="#">SFT-DCMS-Single</a>	1	DataCenter Management Package (per node license)



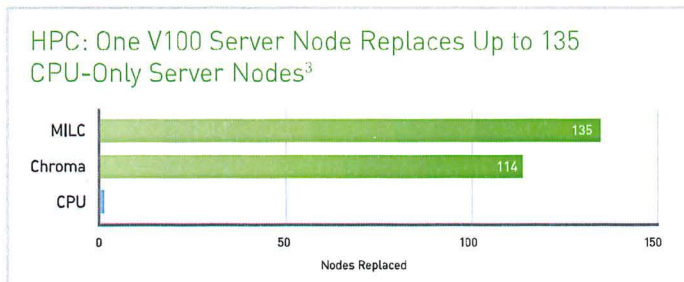
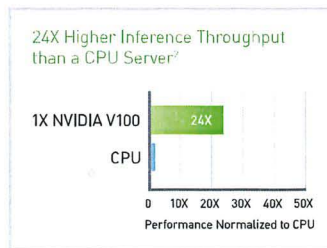
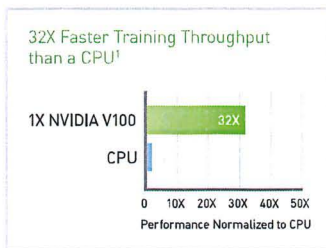
# NVIDIA V100 TENSOR CORE GPU

## The World's Most Powerful GPU

The NVIDIA® V100 Tensor Core GPU is the world's most powerful accelerator for deep learning, machine learning, high-performance computing (HPC), and graphics. Powered by NVIDIA Volta™, a single V100 Tensor Core GPU offers the performance of nearly 32 CPUs—enabling researchers to tackle challenges that were once unsolvable. The V100 won MLPerf, the first industry-wide AI benchmark, validating itself as the world's most powerful, scalable, and versatile computing platform.

## SPECIFICATIONS

	V100 PCIe	V100 SXM2	V100S PCIe
GPU Architecture	NVIDIA Volta		
NVIDIA Tensor Cores	640		
NVIDIA CUDA® Cores	5,120		
Double-Precision Performance	7 TFLOPS	7.8 TFLOPS	8.2 TFLOPS
Single-Precision Performance	14 TFLOPS	15.7 TFLOPS	16.4 TFLOPS
Tensor Performance	112 TFLOPS	125 TFLOPS	130 TFLOPS
GPU Memory	32 GB / 16 GB HBM2		
Memory Bandwidth	900 GB/sec	1134 GB/sec	
ECC	Yes		
Interconnect Bandwidth	32 GB/sec	300 GB/sec	32 GB/sec
System Interface	PCIe Gen3	NVIDIA NVLink™	PCIe Gen3
Form Factor	PCIe Full Height/Length	SXM2	PCIe Full Height/Length
Max Power Consumption	250 W	300 W	250 W
Thermal Solution	Passive		
Compute APIs	CUDA, DirectCompute, OpenCL™, OpenACC®		



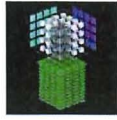


# GROUNDBREAKING INNOVATIONS



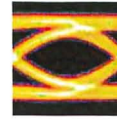
## VOLTA ARCHITECTURE

By pairing CUDA cores and Tensor Cores within a unified architecture, a single server with V100 GPUs can replace hundreds of commodity CPU servers for traditional HPC and deep learning.



## TENSOR CORE

Equipped with 640 Tensor Cores, V100 delivers 130 teraFLOPS (TFLOPS) of deep learning performance. That's 12X Tensor FLOPS for deep learning training, and 6X Tensor FLOPS for deep learning inference when compared to NVIDIA Pascal™ GPUs.



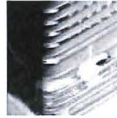
## NEXT-GENERATION NVLINK

NVIDIA NVLink in V100 delivers 2X higher throughput compared to the previous generation. Up to eight V100 accelerators can be interconnected at up to gigabytes per second (GB/sec) to unleash the highest application performance possible on a single server.



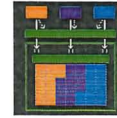
## MAXIMUM EFFICIENCY MODE

The new maximum efficiency mode allows data centers to achieve up to 40% higher compute capacity per rack within the existing power budget. In this mode, V100 runs at peak processing efficiency, providing up to 80% of the performance at half the power consumption.



## HBM2

With a combination of improved raw bandwidth of 900GB/s and higher DRAM utilization efficiency at 95%, V100 delivers 1.5X higher memory bandwidth over Pascal GPUs as measured on STREAM. V100 is now available in a 32GB configuration that doubles the memory of the standard 16GB offering.



## PROGRAMMABILITY

V100 is architected from the ground up to simplify programmability. Its new independent thread scheduling enables finer-grain synchronization and improves GPU utilization by sharing resources among small jobs.

V100 is the flagship product of the NVIDIA data center platform for deep learning, HPC, and graphics. The platform accelerates over 600 HPC applications and every major deep learning framework. It's available everywhere, from desktops to servers to cloud services, delivering both dramatic performance gains and cost-savings opportunities.

**EVERY DEEP LEARNING FRAMEWORK**

**600+ GPU-ACCELERATED APPLICATIONS**

To learn more about the NVIDIA V100 Tensor Core GPU, visit [www.nvidia.com/v100](http://www.nvidia.com/v100)

- 1 ResNet-50 training, dataset: ImageNet2012, BS=256 | NVIDIA V100 comparison: NVIDIA DGX-2™ server, 1x V100 SXM3-32GB, MXNet 1.5.1, container=19.11-py3, mixed precision, throughput: 1,525 images/sec | Intel comparison: Supermicro SYS-1029GQ-TRT, 1 socket Intel Gold 6240@2GHz/3.9Hz Turbo, Tensorflow 0.18, FP32 (only precision available), throughput: 48 images/sec
- 2 BERT Base fine-tuning inference, dataset: SQuADv1.1, BS=1, sequence length=128 | NVIDIA V100 comparison: Supermicro SYS-4029GP-TRT, 1x V100-PCIe-16GB, pre-release container, mixed precision, NVIDIA TensorRT™ 6.0, throughput: 557 sentences/sec | Intel comparison: 1 socket Intel Gold 6240@2.6GHz/3.9Hz Turbo, FP32 (only precision available), OpenVINO MKL-DNN v0.18, throughput: 23.5 sentences/sec
- 3 16x V100-SXM2-32GB in NVIDIA HGX-2™ | Application [dataset]: MILC (APEX Medium) and Chroma (szscl21\_24\_128) | CPU server: dual-socket Intel Xeon Platinum 8280 (Cascade Lake)



# CPU Benchmarks

Over 1,000,000 CPUs Benchmarked

## Intel Xeon Silver 4210 @ 2.20GHz

Price and performance details for the Intel Xeon Silver 4210 @ 2.20GHz can be found below. This is made using thousands of [PerformanceTest](#) benchmark results and is updated daily.

- The first graph shows the relative performance of the CPU compared to the 10 other common (single) CPUs in terms of PassMark CPU Mark.
- The 2nd graph shows the value for money, in terms of the CPUMark per dollar.
- The pricing history data shows the price for a single Processor. For multiple Processors, multiply the price shown by the number of CPUs.

### CPUS



High End

High Mid Range

Low Mid Range

Low End



Best Value  
(On Market)

Best Value XY  
Scatter

Best Value  
(All time)



New Desktop

New Laptop



Single Thread

Systems with  
Multiple CPUs

Overclocked

Power  
Performance

CPU Mark by Socket  
Type

### Intel Xeon Silver 4210 @ 2.20GHz

**Class:**

Server

**Socket:**

FCLGA3647

**Clockspeed:**

2.2 GHz

**Turbo Speed:**

3.2 GHz

**No of Cores:**

10 (2 logical cores per  
physical)

**Typical TDP:**

85 W

**Other names:** Intel(R) Xeon(R) Silver 4210 CPU @ 2.20GHz

**CPU First Seen on Charts:** Q2 2019

**CPUmark/\$Price:** 28.66

**Overall Rank:** 177

**Last Price Change:** [\\$554.70 USD](#) (2020-02-29)

Note: PassMark Software may earn compensation for sales from links on this site through affiliate programs.

Browser adblocker software has been **detected and enabled** for our website.  
Please consider disabling it to support our site and to **view current prices** for  
the selected CPU.

### Average CPU Mark



# 15898

Single Thread Rating: 1727

Samples: 2\*

\*[Margin for error:](#) High

[+ COMPARE](#)

# CPU Benchmarks

Over 1,000,000 CPUs Benchmarked

## [Dual CPU] Intel Xeon Silver 4210 @ 2.20GHz

Price and performance details for the [Dual CPU] Intel Xeon Silver 4210 @ 2.20GHz can be found below. This is made using thousands of [PerformanceTest](#) benchmark results and is updated daily.

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CPUS	[Dual CPU] Intel Xeon Silver 4210 @ 2.20GHz		Average CPU Mark
<b>High End</b> High Mid Range Low Mid Range Low End	<b>Class:</b> Server	<b>Socket:</b> FCLGA3647	 <b>20974</b> Single Thread Rating: 1827 Samples: 1* * <a href="#">Margin for error: High</a> <div style="background-color: #007bff; color: white; padding: 5px; text-align: center; margin-top: 10px;">+ COMPARE</div>
<b>Best Value (On Market)</b> Best Value XY Scatter Best Value (All time)	<b>Clockspeed:</b> 2.2 GHz	<b>Turbo Speed:</b> 3.2 GHz	
<b>New Desktop</b> New Laptop	<b>No of Cores:</b> 10 (2 logical cores per physical)	<b>Typical TDP:</b> 85 W	
<b>Single Thread</b> Systems with Multiple CPUs Overclocked Power Performance CPU Mark by Socket Type	<b>Other names:</b> Intel(R) Xeon(R) Silver 4210 CPU @ 2.20GHz		
	<b>CPU First Seen on Charts:</b> Q2 2019		
	<b>CPUmark/\$Price:</b> 18.91		
	<b>Overall Rank:</b> 121		
	<b>Last Price Change:</b> <a href="#">\$1,109.40 USD</a> Total for 2 CPUs (2020-02-29)		
	<small>Note: PassMark Software may earn compensation for sales from links on this site through affiliate programs.</small>		
	Browser adblocker software has been <b>detected and enabled</b> for our website. Please consider disabling it to support our site and to <b>view current prices</b> for the selected CPU.		