SuperServer 5029P-WTR

Integrated Board

Super X11SPW-TF

**Views: | <u>Angled View</u> | <u>Top View</u> |
| <u>Front View</u> | <u>Rear View</u> |**

▸<u>Drivers & Utilities</u> ▸<u>BIOS</u> ▸<u>IPMI</u> ▸<u>Tested Memory</u> ▸<u>Tested M.2 List</u> ▸<u>Manuals</u> ▸ <u>OS Certification Matrix</u> ▸<u>Quick-References Guide</u> ▸<u>Drive Options</u> ▸<u>Network Card (AOC) Matrix</u>

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

Key Applications

- DB Processing & Storage
- Connectivity/Storage Computer Nodes
- Data Warehouse

Key Features

1. Single Socket P (LGA 3647) supports 2nd Gen Intel® Xeon® Scalable processor (Cascade Lake/Skylake)‡

2. 6 DIMMs; up to 1.5TB 3DS ECC DDR4-2933MHz† RDIMM/LRDIMM

3. 4 PCI-E 3.0 x8 (FHFL) slots, 1 PCI-E 3.0 x8 (LP) slot

4. 8 Hot-swap 3.5" SATA3 drive bays

5. 2x 10GBase-T ports with Intel X722 + X557

6. 1 VGA, 2 COM, 4 USB 3.0, 2 USB 2.0

7. 2 SuperDOM (Disk on Module) ports

8. 500W Redundant Platinum Level power supplies

Specifications

Product SKUs

SYS-5029P-WTR	SuperServer 5029P-WTR (**Black**)

Motherboard

Super X11SPW-TF

Processor/Cache

CPU	- Single Socket P (LGA 3647) 2nd Gen Intel® Xeon® Scalable Processors and Intel® Xeon® Scalable Processors‡ - Support CPU TDP 70-205W*
Cores	Up to 28 Cores
Note	* Certain high frequency optimized CPU are not supported, such as Intel Gold 6250 and 6256. Please contact Supermicro Technical Support for additional information.
Note	‡ BIOS version 3.2 or above is required to support 2nd Gen Intel® Xeon® Scalable processors (codenamed Cascade Lake-R)

System Memory

Memory Capacity	6 DIMM slots - Up to 1.5TB 3DS ECC DDR4-2933MHz† RDIMM/LRDIMM
Memory Type	2933†/2666/2400/2133MHz ECC DDR4 RDIMM/LRDIMM
Note	† 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.

On-Board Devices

Chipset	Intel® C622 chipset
SATA	SATA3 (6Gbps); RAID 0, 1, 5, 10
Network Controllers	Dual 10GBase-T LAN with Intel® X722 + X557
IPMI	- Support for Intelligent Platform Management Interface v.2.0 - IPMI 2.0 with virtual media over LAN and KVM-over-LAN support
Video	ASPEED AST2500 BMC

Input / Output

SATA	10 SATA3 (6Gbps) ports
LAN	2 RJ45 10GBase-T LAN ports 1 RJ45 dedicated IPMI LAN port
USB	5 USB 3.0 ports (2 rear + 2 headers + 1 Type A) 7 USB 2.0 ports (2 rear + 5 headers)
Video	1 VGA port
Serial Port / Header	2 COM ports (1 rear, 1 front)

Chassis

Form Factor	2U Rackmount
Model	CSE-825TQC-R500WB

Dimensions and Weight

Height	3.5" (89mm)
Width	17.2" (437mm)
Depth	25.5" (647mm)
Package	26.5" (W) x 11" (H) x 34" (L)
Weight	- Gross Weight: 59 lbs (26.76 kg) - Net Weight: 34 lbs (15.42 kg)
Available Colors	Black

Front Panel

Buttons	- Power On/Off button - System Reset button
LEDs	- Power LED - Hard drive activity LED - Network activity LEDs - System Information LED - Information LED (temp., status)

Expansion Slots

PCI-Express	4 PCI-E 3.0 x8 (FHFL) slots 1 PCI-E 3.0 x8 (LP) slot
M.2	1x M.2 Interface: PCI-E 3.0 x4 and SATA - Form Factor: 2280, 22110 - Key: M-Key - Double Height Connector

Drive Bays

Hot-swap	8 Hot-swap 3.5" SATA3 drive bays

Peripheral Drives

DVD-ROM	1 Slim DVD-ROM drive bay

System Cooling

Fans	3 Hot-swap 8cm PWM cooling fans

Power Supply with Power Distributor

500W high-efficiency redundant power supplies with PMBus

AC Input	100-240 V, 50-60 Hz, 6.1-2.6 Amp
DC Output	4 Amp @ +5V standby 41.7 Amp @ +12V
With Power Distributor	+5V: 30 Amp +3.3V: 24 Amp -12V: 0.6 Amp
Certification	Platinum Certified [Test Report]

Operating Environment

SuperDOM	▪ 2 SuperDOM (Disk on Module) ports with built-in power

System BIOS

BIOS Type	▪ AMI 32Mb SPI Flash ROM

Management

Software	▪ Intel® Node Manager ▪ IPMI 2.0 ▪ KVM with dedicated LAN ▪ NMI ▪ SPM, SUM ▪ SuperDoctor® 5 ▪ Watch Dog
Power Configurations	▪ ACPI / APM Power Management

PC Health Monitoring

CPU	▪ Monitors for CPU Cores, Chipset Voltages, Memory. ▪ 4+1 Phase-switching voltage regulator
FAN	▪ Fans with tachometer monitoring ▪ Status monitor for speed control ▪ Pulse Width Modulated (PWM) fan connectors
Temperature	▪ Monitoring for CPU and chassis environment ▪ Thermal Control for fan connectors

| **RoHS**	▪ RoHS Compliant

Environmental Spec.	▪ Operating Temperature:
	  10°C ~ 35°C (50°F ~ 95°F)
	▪ Non-operating Temperature:
	  -40°C to 70°C (-40°F to 158°F)
	▪ Operating Relative Humidity:
	  8% to 90% (non-condensing)
	▪ Non-operating Relative Humidity:
	  5% to 95% (non-condensing)

Parts List

Parts List - (Items Included)

	Part Number	Qty	Description
Motherboard / Chassis	MBD-X11SPW-TF	1	Super X11SPW-TF Motherboard
	CSE-825TQC-R500WB	1	1U Chassis
Backplane	BPN-SAS3-825TQ	1	8-port 2U SAS3 12Gbps TQ backplane, support up to 8x 3.5-inch SAS3/SATA3 HDD/SSD
Cable 1	CBL-0228L	3	SATA,INT,ROUND,ST-RA,55CM,26AWG
Cable 2	CBL-0230L	1	SATA,INT,ROUND,ST-RA,65CM,26AWG
Cable 3	CBL-0388L-01	1	MINI SAS-4 SATA (RA),INT,75/75/90/90CM,75CM SB,30AWG
Cable 4	CBL-CDAT-0660	1	CBL,SGPIO,2X4F TO 2X4F,P2.54,ROUND CABLE,27CM,28AWG
Drive Tray(s)	MCP-220-00114-0N	1	Black 2x USB3.0/COM port tray in slim DVD bay,RoHS/REACH
Manual	MNL-1922-QRG	1	QRG,HF,RoHS/REACH
Riser Card	RSC-R2UW-4E8	1	2U LHS WIO Riser card with four PCI-E x8 slots
Riser Card	RSC-R2UW-E8R-UP	1	2U RHS WIO Riser Card with a PCI-E x8 for UP MBs
Heatsink / Retention	SNK-P0068PS	1	2U Passive CPU Heat Sink for X11 Purley Platform Equipped with a Narrow Retention Mechanism
Power Supply	PWS-501P-1R	2	500W 1U Platinum redundant power supply
FAN 1	FAN-0126L4	3	80x80x38 mm 7K RPM Chassis Middle Fan w/ Housing
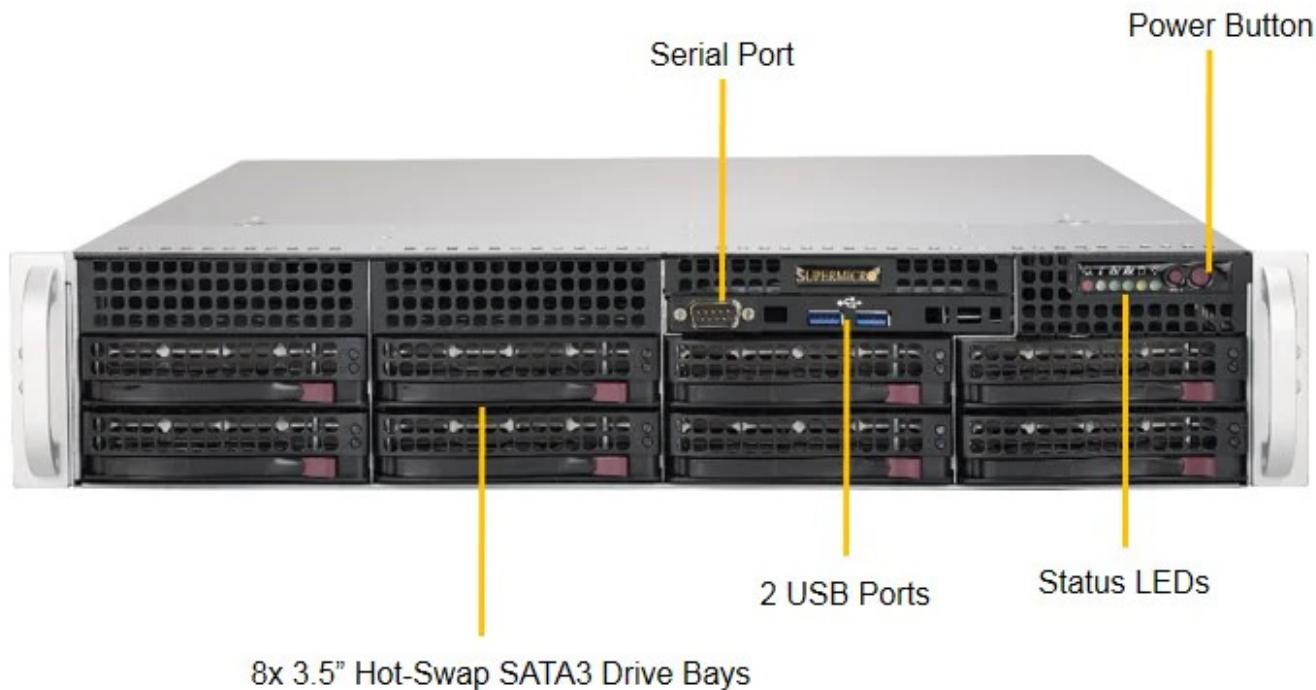
Optional Parts List

	Part Number	Qty	Description
3.5" to 2.5" Converter Tray	MCP-220-00043-0N	-	Black Hot-swap Gen-4 2.5" to 3.5" HDD tray
DVD-ROM / DVD-RW	DVM-TEAC-DVD-SBT5	1	BLACK TEAC SLIM DVD SATA DRIVE
	DVM-PLDS-DVDRW-SBT5	1	PHILIPS SLIM BLACK DVD-RW SATA DRIVE
DVD-ROM Accessory	MCP-220-81502-0N	1	Slim SATA DVD mounting kit
Cable for internal HDD	CBL-0484L	2	55cm 30AWG SATA straight to straigh cable
	CBI-0289L	1	Y split, big 4 pin to two RA SATA power estenstion 30cm
Storage Controller card & cable	AOC-S3108L-H8iR & 2x CBL-SAST-0699	-	Standard LP, 8 Internal ports (12Gb/s) PCI-E 3.0 x8, RAID controller, RAID 0, 1, 5, 6, 10, 50, 60
	AOC-S3108L-H8iR-16DD & 2x CBL-SAST-0699		Standard LP, 8 Internal ports (12Gb/s) PCI-E 3.0 x8, 16HDD RAID controller, RAID 0, 1, 5, 6, 10, 50, 60
	AOC-S3008L-L8i & 2x CBL-SAST-0699		Standard LP, 8 internal ports (12Gb/s) PCI-E 3.0 x8, 63HDD, RAID 0, 1, 10
	AOC-S3008L-L8e & 2x CBL-SAST-0699		Standard LP, 8 internal ports (12Gb/s) PCI-E 3.0 x8, 122HDD HBA
CacheVault	BTR-TFM8G-LSICVM02 & BKT-BBU-BRACKET-05	-	CacheVault for Broadcom 3108 with SuperCap mounting bracket for PCI-E location
	BTR-TFM8G-LSICVM02 & MCP-240-00127-0N	-	CacheVault for Broadcom 3108 with SuperCap mounting bracket for internal fixed bay
Network Card(s)	AOC-SGP-i2	-	Standard LP, 2x GbE RJ45, PCI-E x4, Intel i350-AM2
	AOC-SGP-i4	-	Standard LP, 4x GbE RJ45, PCI-E x4, Intel i350
	AOC-STGN-i2S	-	Standard Lp, 2x 10GbE SFP+, PCI-E x8, Intel 82599ES
	AOC-STGF-i2S	-	Standard Lp, 2x 10GbE SFP+, PCI-E x8, Intel X710-BM2
	AOC-STG-B4S	-	Standard Lp, 4x 10GbE SFP+, PCI-E x8, Broadcom BCM57840S
	AOC-STGS-i2T	-	Standard Lp, 2x 10GbE RJ45, PCI-E x8, Intel X550-AT2
	AOC-S25G-b2S	-	Standard LP, 2x 25GbE SFP28, PCI-E x8, Broadcom BCM57414
	AOC-S25G-m2S	-	Standard LP, 2x 25GbE SFP28, PCI-E x8, Mellanox CX-4 LX
Front Bezels	MCP-210-82503-0B	1	Black front bezels
TPM security module	AOM-TPM-9670V	1	TPM 2.0, vertical form factor
	AOM-TPM-9671V	1	TPM 1.2, vertical form factor
Global Services & Support	OS4HR3/2/1	-	3/2/1-year onsite 24x7x4 service
	OSNBD3/2/1	-	3/2/1-year onsite NBD service

| Software	SFT-OOB-LIC · eStore	1	OOB Management Package (per node license)
Software	SFT-DCMS-Single	1	DataCenter Management Package (per node license)

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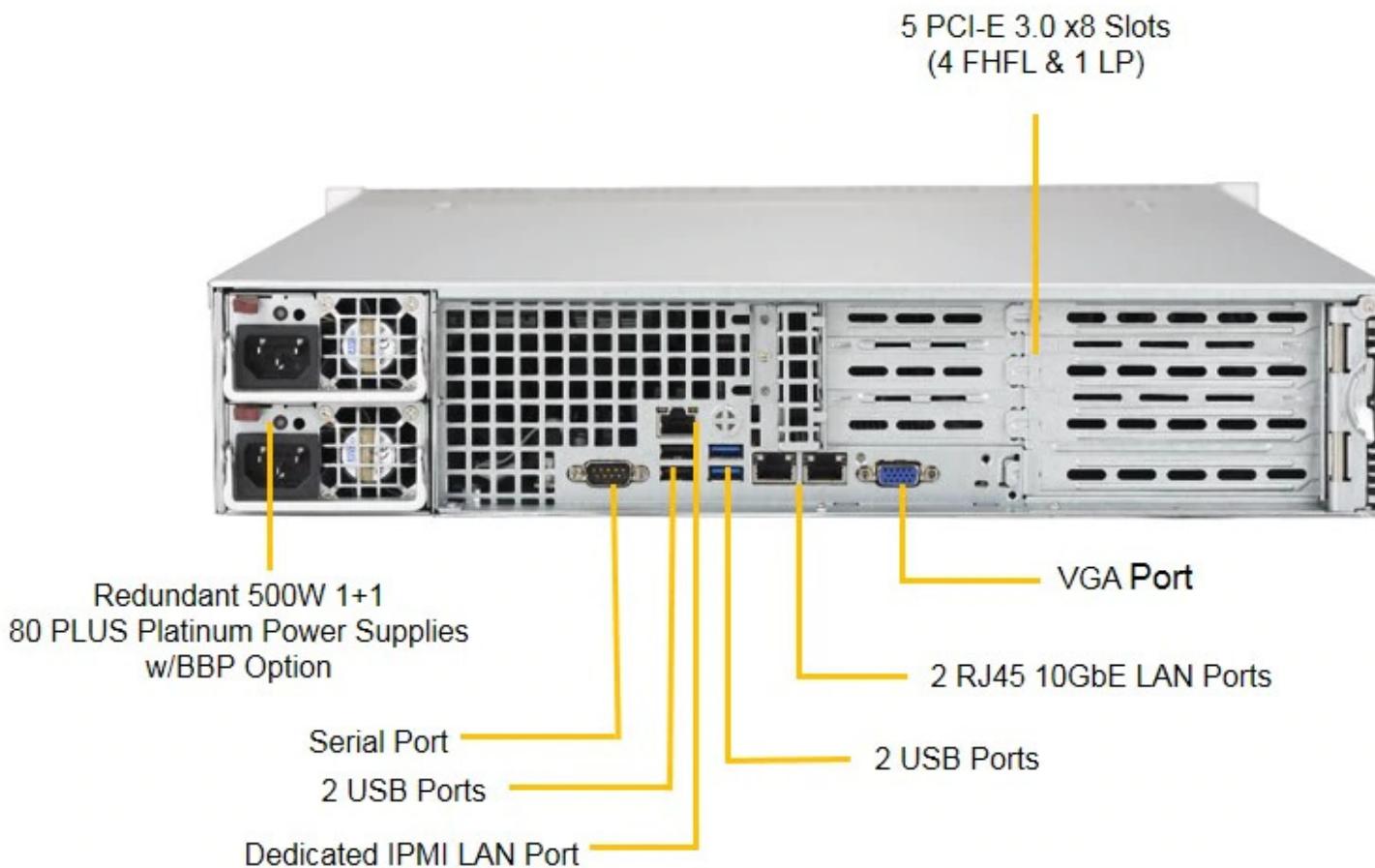
(Front View – System)

Serial Port

Power Button

2 USB Ports

Status LEDs

8x 3.5" Hot-Swap SATA3 Drive Bays

SuperServer SYS-5029P-WTR

(Rear View – System)

5 PCI-E 3.0 x8 Slots
(4 FHFL & 1 LP)

VGA **Port**

Redundant 500W 1+1
80 PLUS Platinum Power Supplies
w/BBP Option

2 RJ45 10GbE LAN Ports

Serial Port

2 USB Ports

2 USB Ports

Dedicated IPMI LAN Port
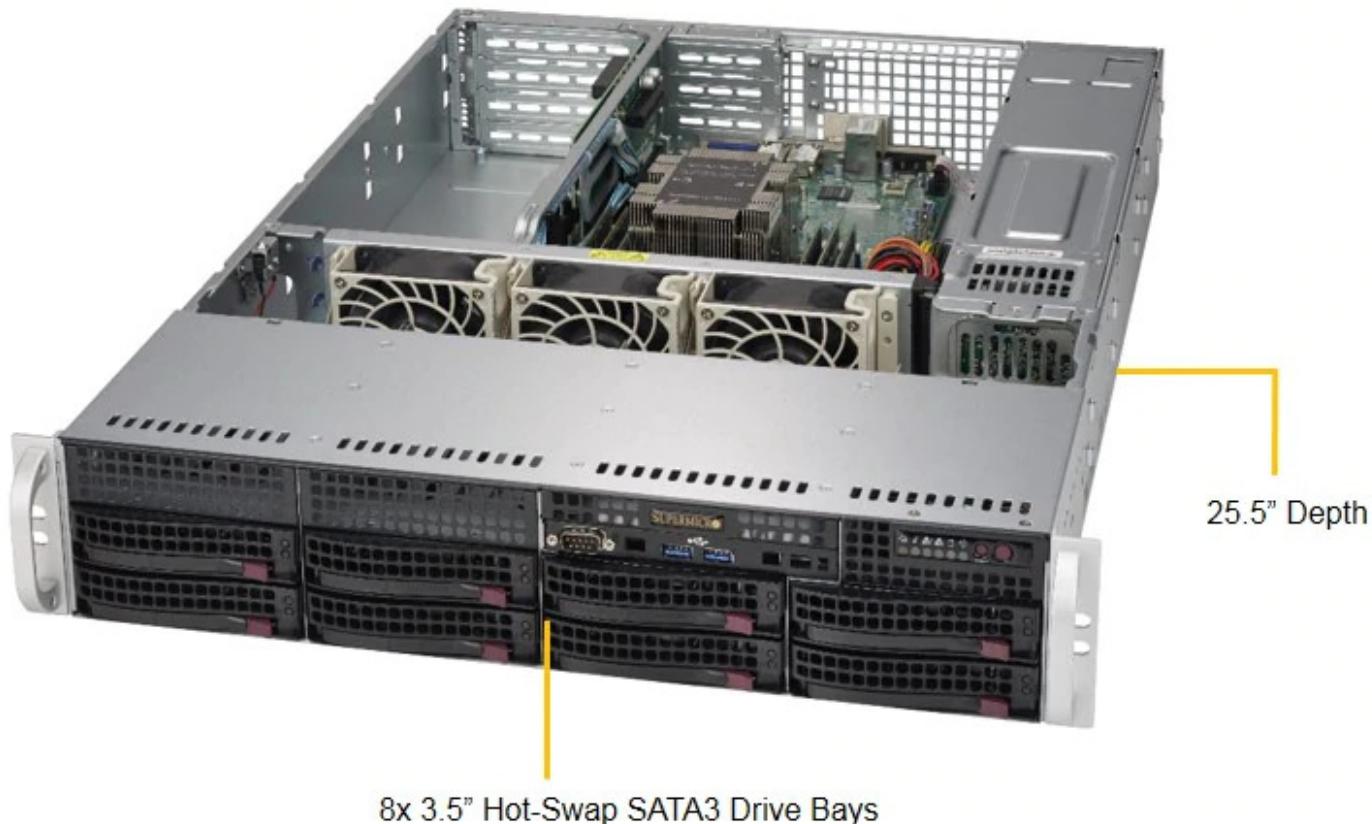
SuperServer SYS-5029P-WTR

(Angled View – System)

25.5" Depth

8x 3.5" Hot-Swap SATA3 Drive Bays
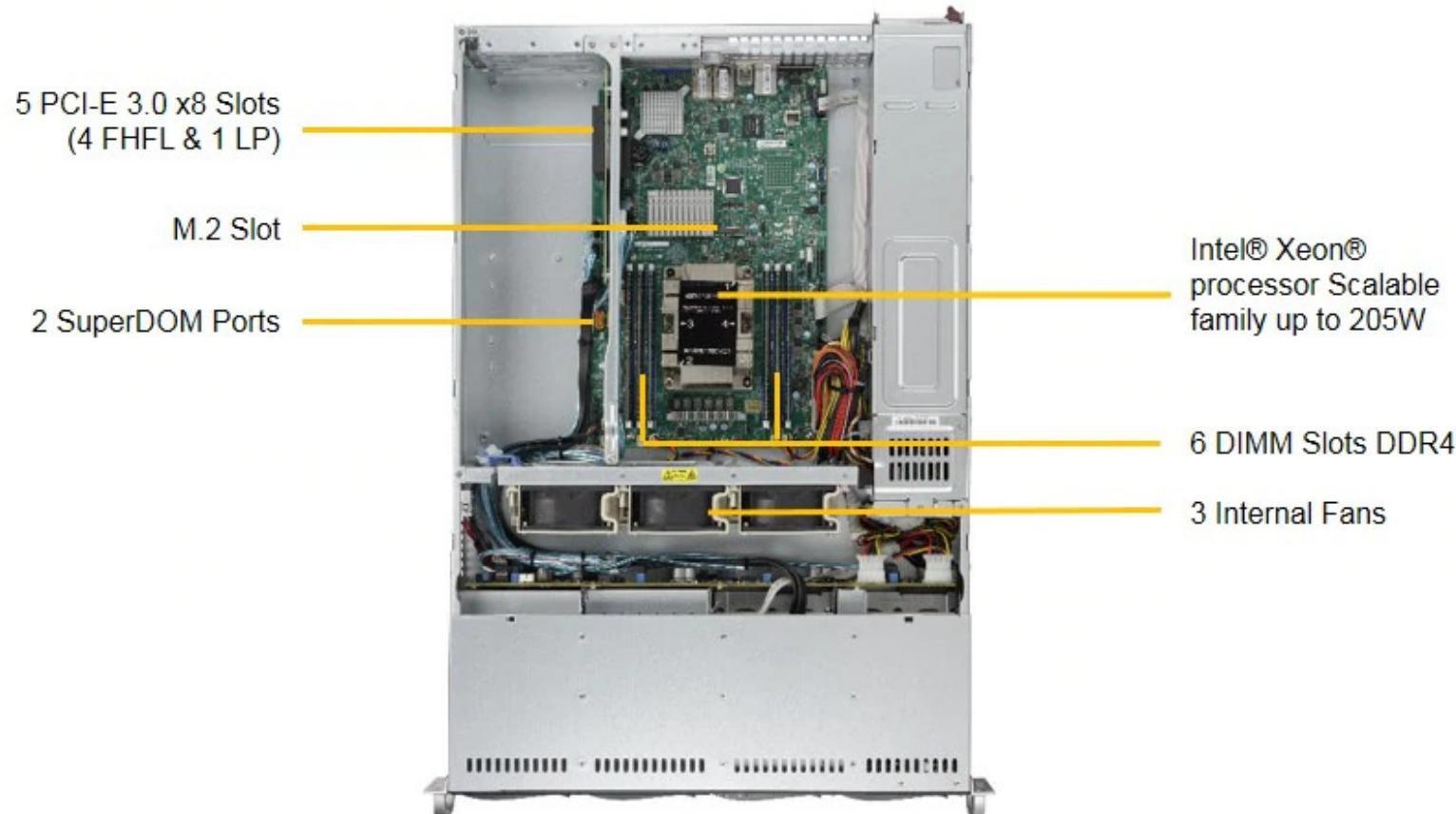
SuperServer SYS-5029P-WTR

(Top View – System)

5 PCI-E 3.0 x8 Slots
(4 FHFL & 1 LP)

M.2 Slot

2 SuperDOM Ports

Intel® Xeon®
processor Scalable
family up to 205W

6 DIMM Slots DDR4

3 Internal Fans