

SuperServer 6019U-TN4R4T (Complete System Only)



Integrated Board



X11DPU

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 and 4 DIMMs).

[▶ Drivers & Utilities](#) | [▶ BIOS](#) | [▶ IPMI](#) | [▶ Tested Memory](#) | [▶ Tested M.2 List](#) | [▶ NVMe Options](#) | [▶ Manuals](#) | [▶ OS Certification Matrix](#)
[▶ Quick-References Guide](#) | [▶ Drive Options](#) | [▶ Network Card \(AOC\) Matrix](#)

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

Key Features

Virtualization
Cloud Computing
High End Enterprise Server

1. Dual Socket P (LGA 3647) support 2nd Gen Intel® Xeon® Scalable processors (Cascade Lake/Skylake)[‡]
2. 24 DIMMs; up to 6TB 3DS ECC DDR4-2933MHz[†] RDIMM/LRDIMM, Supports Intel® Optane™ DCPMM^{††}
3. 2 PCI-E 3.0 x16 slots (FH, 10.5" L), 2 PCI-E 3.0 x8 slots (1 LP, 1 internal LP)
4. 4 10GBase-T Ethernet ports
5. 4 Hot-swap 3.5" drive bays: 4 NVMe/SATA3 hybrid ports; 2 internal M.2 (1 SATA3, 1 NVMe); 1 M.2 NVMe port, Optional extra M.2 NVMe and SATA3 ports
6. 8 Heavy duty fans w/ optimal fan speed control
7. 750W Redundant Power Supplies **Platinum Level (94%+)**

Specifications

Product SKUs

SYS-6019U-TN4R4T	<ul style="list-style-type: none"> SuperServer 6019U-TN4R4T (Black)
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Motherboard

Super X11DPU

Processor/Cache

CPU	<ul style="list-style-type: none"> Dual Socket P (LGA 3647) 2nd Gen Intel® Xeon® Scalable Processors and Intel® Xeon® Scalable Processors[‡], Dual UPI up to 10.4GT/s Support CPU TDP 70-205W
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Cores	<ul style="list-style-type: none"> Up to 28 Cores
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Note	<p>[‡] 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.

System Memory

Memory Capacity	<ul style="list-style-type: none"> 24 DIMM slots Up to 6TB 3DS ECC DDR4-2933MHz[†] RDIMM/LRDIMM Supports Intel® Optane™ DCPMM^{††}
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Memory Type	<ul style="list-style-type: none"> 2933[†]/2666/2400/2133MHz ECC DDR4 RDIMM/LRDIMM 2666 ECC DDR4 NVDIMM
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Note	<p>[†] 2933MHz in two DIMMs per channel can be achieved by using memory purchased from Supermicro</p> <p>^{††} Cascade Lake only. Contact your Supermicro sales rep for more info.</p>
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On-Board Devices

Chipset	<ul style="list-style-type: none"> Intel® C621 chipset
SATA	<ul style="list-style-type: none"> SATA3 (6Gbps); RAID 0, 1, 5, 10
Network Connectivity	<ul style="list-style-type: none"> 4x 10GBase-T ports via AOC-UR-i4XT (Intel® X540 10GBase-T)
IPMI	<ul style="list-style-type: none"> Support for Intelligent Platform Management Interface v.2.0 IPMI 2.0 with virtual media over LAN and KVM-over-LAN support
Graphics	<ul style="list-style-type: none"> ASPEED AST2500 BMC

Input / Output

SATA/NVMe	<ul style="list-style-type: none"> 4 SATA3 (6Gbps)/NVMe ports
LAN	<ul style="list-style-type: none"> 4 RJ45 10GBase-T Ethernet ports 1 RJ45 Dedicated IPMI LAN port
USB	<ul style="list-style-type: none"> 3 USB 3.0 ports (2 rear, 1 Type A)
Video	<ul style="list-style-type: none"> 2 VGA ports (1 rear, 1 onboard)

Chassis

Form Factor	<ul style="list-style-type: none"> 1U Rackmount
Model	<ul style="list-style-type: none"> CSE-819UTS-R751P-T

Dimensions and Weight

Height	<ul style="list-style-type: none"> 1.7" (43mm)
Width	<ul style="list-style-type: none"> 17.2" (437mm)
Depth	<ul style="list-style-type: none"> 29.7" (754mm)
Weight	<ul style="list-style-type: none"> Net Weight: 26 lbs (11.8 kg) Gross Weight: 41 lbs (18.6 kg)
Available Color	<ul style="list-style-type: none"> Black

Front Panel

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

Expansion Slots

PCI-Express	<ul style="list-style-type: none"> 2 PCI-E 3.0 x16 (Full-height, 10.5" L) 2 PCI-E 3.0 x8 (1 LP, 1 internal LP) <p>(Both CPUs need to be installed for full access to PCI-E slots and onboard controllers. See manual block diagram and AOC Support for details.)</p>
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Drive Bays / Storage

Hot-swap	<ul style="list-style-type: none"> 4 Hot-swap 3.5" drive bays: 4 NVMe/SATA3 hybrid ports (optional SAS3 via AOC)
M.2	<ul style="list-style-type: none"> 1 M.2 PCI-E 3.0 x4 M-Key NVMe (2240/2260/2280/22110) or 1 M.2 M-Key SATA3 (2240/2260/2280/22110) via optional parts 2 M.2 PCI-E 3.0 x4 M-Key NVMe (2260/2280/22110) via optional add-on card AOC-SLG3-2M2

System Cooling

Fans	<ul style="list-style-type: none"> 8 Heavy duty fans with optimal fan speed control
Air Shroud	<ul style="list-style-type: none"> 1 Air Shroud

Power Supply

750W Redundant AC-DC Power Supplies, +12V/+12Vsb output	
AC Input	<ul style="list-style-type: none"> 100-127Vac, 50-60Hz 200-240Vac, 50-60Hz
+12V	<ul style="list-style-type: none"> Max: 62.5A & Min: 0A (100Vac-127Vac) Max: 62.5A & Min: 0A (200Vac-240Vac)

Serial Port	<ul style="list-style-type: none"> 1 Serial header
DOM	<ul style="list-style-type: none"> 2 SATA DOM (Disk on Module) support with embedded power

System BIOS

BIOS Type	<ul style="list-style-type: none"> AMI 32Mb SPI Flash ROM
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Management

Software	<ul style="list-style-type: none"> Intel® Node Manager <u>IPMI 2.0</u> KVM with dedicated LAN NMI <u>SSM, SPM, SUM</u> <u>SuperDoctor® 5</u>
Power Configurations	<ul style="list-style-type: none"> ACPI 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

12V SB	<ul style="list-style-type: none"> Max: 2.1A Min: 0A
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Certification



Platinum Level

[[Test Report](#)]

Operating Environment

RoHS	<ul style="list-style-type: none"> RoHS Compliant
Environmental Spec.	<ul style="list-style-type: none"> 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-X11DPU	1	Super X11DPU Motherboard
	CSE-819UTS-R751P-T	1	1U Chassis
Add-on Card / Module	AOC-UR-I4XT-P	1	1U Ultra Riser based on Intel X540 controller with 4-port 10GBase-T and 1 internal PCI-E 3.0 x8 slot
Backplane	BPN-SAS3-815TQ-N4	1	4-port 1U SAS3 12Gbps Hybrid backplane, support up to 4x 3.5-inch SAS3/SATA3/NVMe Storage Devices
Cable 1	CBL-PWEX-0650	1	8 pin female to 2x RA(Right Angle) big 4 pin female power, 47/62CM, 18AWG,RoHS/REACH
Cable 2	CBL-SAST-0819	4	OCuLink v 1.0,INT,PCIe NVMe SSD, 65CM,34AWG,RoHS/REACH
Cable 3	CBL-SAST-0880	1	MINI SAS(RA-RS EXIT)-4 SATA,INT,55/55/55/55CM,55CM SB,30AWG
FAN 1	FAN-0101L4	8	40x56,4 Pin PWM,Primary for SC809,111, Sec.for SC816,819,808
Drive Tray(s)	MCP-220-00138-0B	4	Black gen-5.5 tool-less NVMe 3.5-to-2.5 drive tray, Orange tab
Air Shroud	MCP-310-81910-0N	1	Plastic air shroud for SC819U, 119U (X11 24DIMM, left side)
Air Shroud	MCP-310-81911-0N	1	Plastic air shroud for SC819U, 119U (X11 24DIMM, right side)
Riser Card	RSC-R1UW-2E16	1	1U LHS WIO Riser card with two PCI-E x16 slots
Riser Card	RSC-UMR-8	1	1U Ultra RHS Riser Card with 1 PCIE/SATA Hybrid M.2 & 1 PCIE
Heatsink / Retention	SNK-P0067PS	2	1U Passive CPU Heat Sink for X11 Purley Platform Equipped with a Narrow Retention Mechanism
* Power Supply	PWS-751P-1R	2	1U 750W Redundant Platinum Single Output Power Supply w/Pmbus W73.5xH40xL203mm,RoHS/REACH

Notes:

- Parts with * are inside the chassis
- Excessive parts might not be shipped, including but not limited to excessive drive trays, fans, riser brackets, air shrouds, IO shields, cables.....etc.

Optional Parts List

	Part Number	Qty	Description
Add-on card for internal M.2 NVMe	AOC-SLG3-2M2	1	Low Profile PCIe x8 add-on card supports 2 PCI-E 3.0 x4 M.2 NVMe Modules
Cable for internal M.2 SATA	CBL-SAST-0538	1	29cm 30AWG SATA S-RA cable
3.5" SATA/SAS Drive Tray Hot-swap 3.5" to 2.5" SATA/SAS Drive Trays	MCP-220-00075-0B	1~4	Black hot-swap 3.5" drive tray (Red tab, w/ hollow dummy)
	MCP-220-00118-0B		Tool-less black hot-swap 3.5-to-2.5 converter drive tray (Red tab)
	MCP-220-00043-0N		Black hot-swap 3.5-to-2.5 converter drive tray (Red tab)
DVD-ROM / DVD-RW	DVM-TEAC-DVD-SBT4 DVM-TEAC-DVDRW-SBT4 DVM-PLDS-DVDRW-SBT5 & CBL-0161L & CBL-PWEX-0702	1	SLIM DVD-ROM / DVD-RW SATA DRIVE
DVD-ROM / DVD-RW Installation Kit	MCP-220-81502-0N	1	Slim SATA DVD kit
Hot-Swap 2.5" Slim HDD Tray (FDD Slot)	MCP-220-81504-0N & CBL-0161L & CBL-PWEX-0702	1	12G 2.5" Hot-swap Slim Floppy Size Drive Kit w/Status LED
Hot-Swap 2.5" Slim HDD Tray (DVD Slot)	MCP-220-81506-0N & CBL-0161L & CBL-PWEX-0702	1	12G 2.5" Hot-swap Slim DVD Size Drive Kit with Status LED
USB Port Tray (FDD Slot)	MCP-220-00129-0B	1	Black 2x USB 3.0 port tray in slim FDD bay

Internal Drive Tray for Two 2.5" Drives	MCP-120-82916-0N	1	Internal drive plate Supports Two 2.5" Drive, PCI slots
	CBL-PWEX-0650	1	Power cable for Two internal 2.5" drives
	CBL-0080L	2	
	CBL-0484L Or CBL-SAST-0654 Or	2 1	SATA3 S-S Cable miniSAS(iPass) to 4 SATA Cable
	CBL-SAST-0948	1	miniSAS HD to 4 SATA Cable
Storage Control Card and Cable(s)	AOC-S3008L-L8e & 1x CBL-SAST-0948	1	Std LP, 8 internal ports, 12Gb/s per port- Gen3, 122HDD, HBA; MINI SAS HD,12G,INT,60CM,30AWG
	AOC-S3008L-L8i & 1x CBL-SAST-0948		Std LP, 8 internal ports, 12Gb/s per port- Gen3, 63HDD, RAID 0,1,1E; MINI SAS HD,12G,INT,60CM,30AWG
	AOC-S3108L-H8iR & 1x CBL-SAST-0948		Std LP, 8 internal ports, 12Gb/s per port- Gen3, 240HDD, RAID 0, 1, 5, 6, 10, 50, 60; MINI SAS HD,12G,INT,60CM,30AWG
	AOC-S3108L-H8iR-16DD & 1x CBL-SAST-0948		Std LP, 8 internal ports, 12Gb/s per port- Gen3, 16HDD, RAID 0, 1, 5, 6, 10, 50, 60; MINI SAS HD,12G,INT,60CM,30AWG
Network Card(s)	AOC-SGP-i2/4	-	Standard LP, 2/4x GbE RJ45, PCI-E x4, Intel i350
	AOC-STGN-i1S/i2S	-	Standard LP, 1/2x 10GbE SFP+, PCI-E x8, Intel 82599EN
	AOC-STGF-i2S	-	Standard LP, 2x 10GbE SFP+, PCI-E x8, Intel XL710-BM2
	AOC-STG-i4S	-	Standard LP, 4x 10GbE SFP+, PCI-E x8, Intel XL710
	AOC-STG-b4S	-	Standard LP, 4x 10GbE SFP+, PCI-E x8, Broadcom BCM57840S
	AOC-STG-i2T	-	Standard LP, 2x 10GbE RJ45, PCI-E x8, Intel X540
	AOC-STGS-i1/2T	-	Standard LP, 1/2x 10GbE RJ45, PCI-E x8, Intel X550
	AOC-STG-i4T	-	Standard LP, 4x 10GbE RJ45, PCI-E x8, Intel XL710
	AOC-STG-i2	-	Standard LP, 2x 10GbE CX4, PCI-E x8, Intel 82598EB
	AOC-S25G-m2S	-	Standard LP, 2x 25GbE SFP28, Mellanox ConnectX-4 LX EN
	AOC-S40G-i2Q	-	Standard LP 2-port 40GbE controller, Intel Fortville XL710
	More	-	AOC Compatibility Matrix
	CacheVault(s)	BTR-CV3108-1U1	-
BTR-TFM8G-LSICVM02 & BKT-BBU-BRACKET-05		-	40x56 fan tray CacheVault for Broadcom 3108; Supercap mounting bracket for PCI-E location
Hot-swap 3.5" to 2.5" Hard Disk Drive Tray	MCP-220-00043-0N	-	Black hot-swap 3.5" to 2.5" HDD tray
1U Cable Management Arm	MCP-290-00152-0N	1	1U Supermicro Cable Management Arm 2nd Gen
TPM security module	AOM-TPM-9670H-S	1	TCG 2.0 compliant trusted platform module (TPM), Horizontal FF
	AOM-TPM-9671H-S	1	TCG 1.2 compliant trusted platform module (TPM), Horizontal FF
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-VROCPREMOD	1	Intel VROC Premium, RAID 0, 1, 5, 10
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)