TECHNICAL DATASHEET

SUPERMICRO · RACKMOUNT SERVERS

Supermicro Mainstream SuperServer SYS-621P-TRT

2U Mainstream with 6 PCIe 5.0 slots and dual 10GbE LAN

SKU SYS-621P-TRT | 2U | LGA4677 | Supermicro

FORM FACTOR	MAX POWER (BASE)	HEAT OUTPUT	PRICE
2U	474 W	1,617 BTU/h	from €5,740

ISO 9001 · ISO 14001 · ISO 27001 · cisco · tp-link · Omada by tp-link

CONFIGURE & QUOTE ONLINE
serverinvest.com/product/sys-621p-trt

01 Product overview

The Supermicro SYS-621P-TRT is a 2U Mainstream Server built on dual Intel Xeon Scalable 4th/5th Gen processors with up to 4 TB of memory in 16 DIMM slots.

2U Mainstream with 6 PCIe 5.0 slots and dual 10GbE LAN.

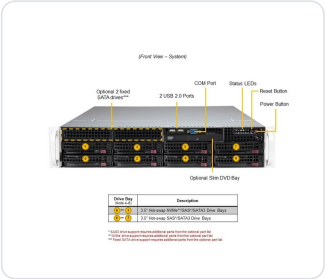
ServerInvest configures every SYS-621P-TRT to order, updates BIOS and BMC firmware, installs your operating system on request and runs a 48-hour burn-in test before delivery. Every system includes a 3-year warranty.

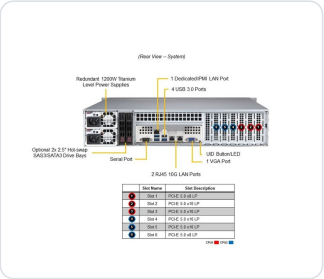
HIGHLIGHTS

- Dual Intel Xeon Scalable 4th/5th Gen
- Up to 4 TB memory · 16 DIMM slots
- Total 8 bays 4 front hot-swap 3.5" NVMe*/SAS*/SATA drive bays
- Power: 2x 1200W
- Networking: 2 RJ45 10GbE

KEY SPECIFICATIONS

Form factor	2U
Processor	2× Intel Xeon Scalable 4th/5th Gen
Socket	LGA4677
Memory	16 DIMM slots, up to 4 TB
Memory type	DDR5-5600 ECC RDIMM
Drive bays	8 (12 NVMe)
Power supply	2× 1200 W
Typical power draw	830 W
Networking	2 RJ45 10GbE
Dimensions (W×H×D)	437 × 89 mm





02 Base configuration

Components included in the listed base price — every part can be changed in the online configurator

COMPONENT	DESCRIPTION	QTY
Base system	**Supermicro Mainstream SuperServer SYS-621P-TRT**	1
Processor	Intel Xeon Silver 4410Y Processor 12 Cores (30M Cache, 2.00/3.90 Ghz) 150W	2
Memory	16GB 5600MT/s DDR5 ECC Registered DIMM Module	4
Warranty & support	3-year return-to-base warranty (included)	1

Base configuration from **€5,740** excl. VAT

03 Power & thermal

Calculated for the base configuration

IDLE	TYPICAL	MAXIMUM	HEAT (MAX)	COOLING	PSU LOAD
115 W	312 W	474 W	1,617 BTU/h	0.5 kW	40%

Typical 312 W · max 474 W · single PSU rating 1200 W

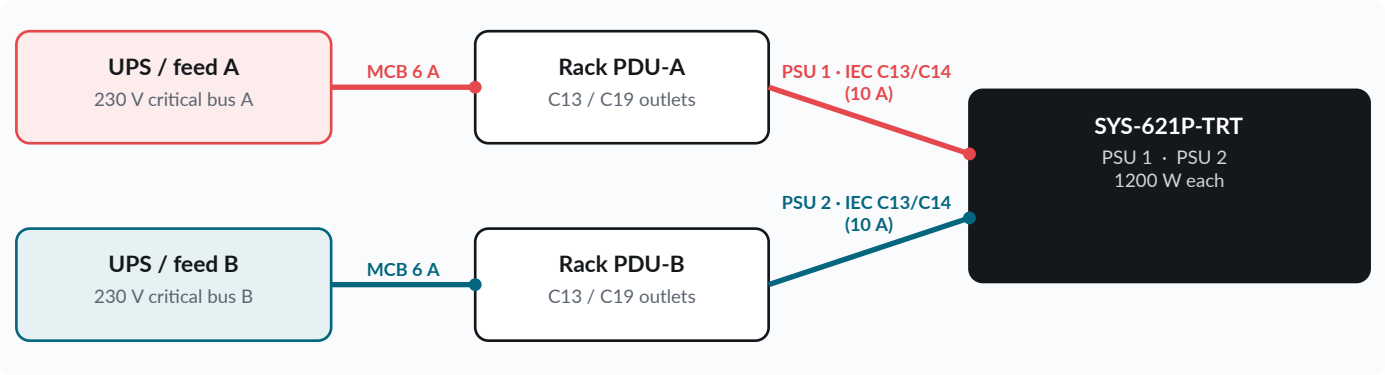
Annual IT energy (24/7)	2,215 kWh
Annual facility energy (PUE 1.5)	3,323 kWh
Annual energy cost	€443 IT · €665 incl. cooling (at 0.20 €/kWh)
CO_2 emissions / year	0.86 t (grid factor 0.26 kg/kWh)
Power supplies	2× 1200 W redundant (N+1)

POWER BY COMPONENT	IDLE	TYPICAL	MAX
Chassis, motherboard, fans, BMC	50 W	77 W	**110 W**
2× CPU — Intel Xeon Silver 4410Y Processor 12 Cores	46 W	196 W	**300 W**
4× Memory 16 GB DIMM	12 W	20 W	**36 W**

DC loads converted to wall power at 94% PSU efficiency; typical load assumed 70% of the time. Engineering estimates — confirm with the manufacturer's power calculator for critical designs.

04 Power connection diagram

Dual-feed (A/B) connection for redundant power supplies



- Connect PSU 1 to PDU-A and PSU 2 to PDU-B (independent feeds) using IEC C13/C14 (10 A) power cords.
- Maximum current per feed: 2.2 A at 230 V — each feed must be able to carry the full load if the other fails.
- Recommended protection per PDU circuit: MCB 6 A, curve C; RCD according to local regulations.
- Heat to remove at full load: 474 W = 1,617 BTU/h (0.5 kW).

05 Full specifications

MOTHERBOARD	
	Super X13DEI-T

PROCESSOR	
CPU	Dual Socket E (LGA-4677) 5th Gen Intel Xeon / 4th Gen Intel Xeon Scalable processors
Note	Supports up to 300W TDP CPUs (Air Cooled)

SYSTEM MEMORY

Memory	Slot Count: 16 DIMM slots Max Memory (1DPC): Up to 4TB 5600MT/s ECC DDR5 RDIMM View Memory Options
Memory Voltage	1.1V

ON-BOARD DEVICES

SATA	SATA (6Gbps)
Network Connectivity	2 RJ45 10GbE View AOC Options

INPUT / OUTPUT

LAN	1 RJ45 1 GbE Dedicated BMC LAN port
USB	2 USB 2.0 ports (front) 4 USB 3.0 ports (rear)
Video	1 VGA port
Serial	1 COM port (Rear) 1 COM port (Front)
DOM	2 Super DOM (Disk on Module) ports
TPM	1 TPM Onboard/port 80

SYSTEM BIOS

BIOS Type	AMI 32MB SPI Flash EEPROM

MANAGEMENT

Software	SuperCloud Composer (SCC) Supermicro Server Manager (SSM) Supermicro Update Manager (SUM) Supermicro SuperDoctor 5 (SD5) Super Diagnostics Offline (SDO) Supermicro Thin-Agent Service (TAS) SuperServer Automation Assistant (SAA) New!
Power configurations	ACPI/APM Power Management

SECURITY

Hardware	Trusted Platform Module (TPM) 2.0 Silicon Root of Trust (RoT) – NIST 800-193 Compliant
Features	Cryptographically Signed Firmware Secure Boot Secure Firmware Updates Automatic Firmware Recovery Supply Chain Security: Remote Attestation Runtime BMC Protections System Lockdown

PC HEALTH MONITORING

CPU	Monitors for CPU Cores, Chipset Voltages, Memory

Fan	Fans with tachometer monitoring Pulse Width Modulated (PWM) fan connectors Status monitor for speed control
Temperature	Monitoring for CPU and chassis environment Thermal Control for fan connectors

CERTIFICATIONS

Operating Systems	ESXi 8.0, Oracle Linux 9.0, RHEL 9.0, Windows Server 2022, Windows Server 2025 View all OS Compatibility and Certification Matrix

CHASSIS

Form Factor	2U Rackmount
Model	CSE-825BTS-R1K23LPP1

DIMENSIONS AND WEIGHT

Height	3.5" (89 mm)
Width	17.2" (437 mm)
Depth	25.5" (647 mm)
Package	11.4" (H) x 26.7" (W) x 34.5" (D)
Weight	Gross Weight: 69 lbs (31.2 kg) Net Weight: 36.38 lbs (16.5 kg)
Available Color	Black

FRONT PANEL

Buttons	Power On/Off System Reset
LED	HDD activity Network activity Power status System information (overheat/UID)

EXPANSION SLOTS

PCI-Express (PCIe) Configuration	Default 2 PCIe 5.0 x8 LP slots 4 PCIe 5.0 x16 LP slots View AOC Options
M.2	2 M.2 PCIe 4.0 x2 NVMe slots (M-key)

DRIVE BAYS / STORAGE

Drive Bays Configuration	Default: Total 8 bays 4 front hot-swap 3.5" NVMe*/SAS*/SATA drive bays 4 front hot-swap 3.5" SAS*/SATA drive bays (*NVMe/SAS support may require additional storage controller and/or cables, please see the optional parts list for details) View NVMe Options View Drive Options
M.2	2 M.2 NVMe slots (M-key) View M.2 Options
Peripheral Bays	1 slim DVD bay (optional)

SYSTEM COOLING

Fans	Up to 3 middle 8cm Fan(s)

POWER SUPPLY

	2x 1200W 2x 1200W Redundant (1 + 1) Titanium Level (96%) power supplies Dimension (WxHxL) 76 x 40 x 336 mm

OPERATING ENVIRONMENT

RoHS	RoHS Compliant
Environmental Spec.	Operating Temperature: 10°C to 35°C (50°F to 95°F) Non-operating Temperature: -30°C to 60°C (-40°F to 140°F) Operating Relative Humidity: 8% to 80% (non-condensing) Non-operating Relative Humidity: 8% to 90% (non-condensing)

06 Built, tested & supported by ServerInvest

Engineered configuration
Every option validated for socket, memory channels, PCIe lanes, power and cooling.

48-hour burn-in
Assembled, firmware-updated and stress-tested before it leaves our workshop.

3-year warranty
Standard on every system, with on-site next-business-day upgrades available.

Rack-ready delivery
Rails, cable management and labelling included — delivered across Europe.

NATCERT ISO 9001 · NATCERT ISO 14001 · NATCERT ISO 27001 · cisco · tp-link · Omada by tp-link

Ready to order or need changes?

Configure this system online or talk to a solutions engineer — we reply within one business day.
office@serverinvest.com
Official manufacturer datasheet: serverinvest.com/product/sys-621p-trt/datasheet/manufacturer