TECHNICAL DATASHEET

SUPERMICRO · STORAGE SERVERS

# Supermicro 2U Storage Server SSG-621E-ACR12H

2U front-loading storage server with 12 hot-swap 3.5" SAS/SATA bays (SAS hardware RAID; 6 optional NVMe) and PCIe 5.0

SKU SSG-621E-ACR12H | 2U | LGA4677 | Supermicro

| FORM FACTOR | MAX POWER (BASE) | HEAT OUTPUT | PRICE |
|---|---|---|---|
| 2U | 474 W | 1,617 BTU/h | On request |

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

CONFIGURE & QUOTE ONLINE
serverinvest.com/product/ssg-621e-acr12h

## 01 Product overview

The Supermicro SSG-621E-ACR12H is a 2U Storage Server built on dual Intel Xeon Scalable 4th/5th Gen processors with up to 4 TB of memory in 16 DIMM slots.

2U front-loading storage server with 12 hot-swap 3.5" SAS/SATA bays (SAS hardware RAID; 6 optional NVMe) and PCIe 5.0.

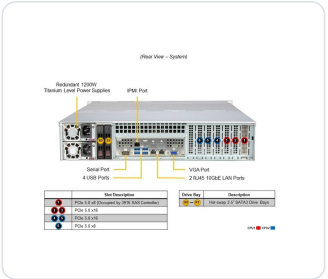
ServerInvest configures every SSG-621E-ACR12H to order, updates BIOS and BMC firmware, installs your operating system on request and runs a 48-hour burn-in test before delivery. Every system includes a 3-year warranty.

### HIGHLIGHTS

- Dual Intel Xeon Scalable 4th/5th Gen
- Up to 4 TB memory · 16 DIMM slots
- Total 14 bays 12 front hot-swap 3.5" SAS/SATA drive bays
- Power: 2x 1200W
- Networking: 2 RJ45 10GbE with Broadcom BCM57416

### 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 | **22 (22 NVMe)** |
| Power supply | **2× 1200 W** |
| Typical power draw | **750 W** |
| Networking | **2 RJ45 10GbE with Broadcom BCM57416** |
| 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 2U Storage Server SSG-621E-ACR12H** | 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 |

**Price on request — contact us for a tailored quotation**

## 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

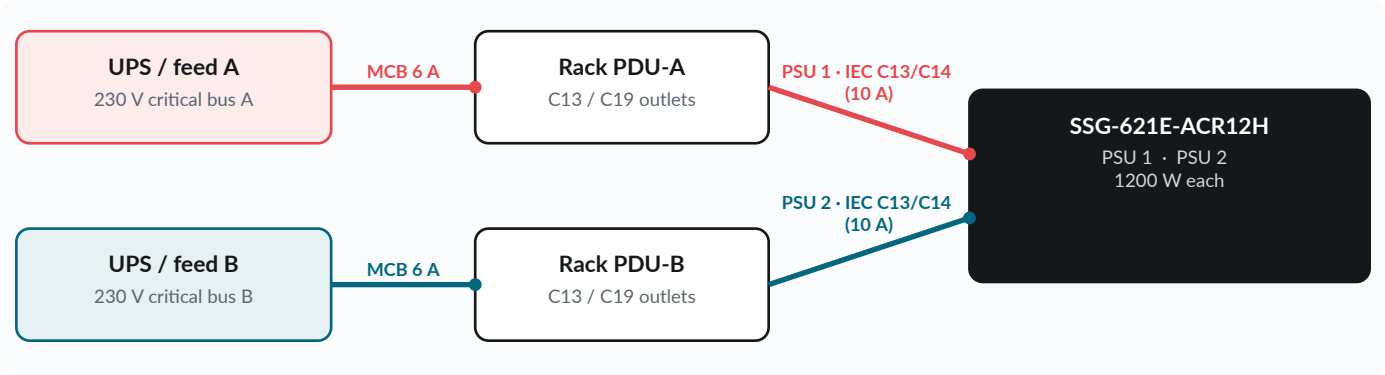
| | |
|---|---|
| Annual IT energy (24/7) | 2,215 kWh |
| Annual facility energy (PUE 1.5) | 3,323 kWh |
| Annual energy cost | €443 IT · €665 incl. cooling (at 0.20 €/kWh) |
| $CO_2$ emissions / year | 0.86 t (grid factor 0.26 kg/kWh) |
| Power supplies | 2× 1200 W redundant (N+1) |

| 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)<br>5th Gen Intel Xeon / 4th Gen Intel Xeon Scalable processors |
| Note | Supports up to 270W TDP CPUs (Air Cooled) |

## SYSTEM MEMORY

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

## ON-BOARD DEVICES

| | |
|---|---|
| Network Connectivity | 2 RJ45 10GbE with Broadcom BCM57416<br>View AOC Options |

## INPUT / OUTPUT

| | |
|---|---|
| LAN | 1 RJ45 1 GbE Dedicated BMC LAN port<br>2 RJ45 10 GbE LAN ports (Broadcom BCM57416) (IPMI shared on LAN port 1) |
| USB | 4 USB 3.0 ports (rear) |
| Video | 1 VGA port (Rear) |
| Serial | 1 COM port (Rear) |
| TPM | 1 TPM header |

## SYSTEM BIOS

| | |
|---|---|
| BIOS Type | AMI 32MB SPI Flash EEPROM |

## MANAGEMENT

| | |
|---|---|
| Software | SuperCloud Composer (SCC)<br>Supermicro Server Manager (SSM)<br>Supermicro Update Manager (SUM)<br>Supermicro SuperDoctor 5 (SD5)<br>Super Diagnostics Offline (SDO)<br>Supermicro Thin-Agent Service (TAS)<br>SuperServer Automation Assistant (SAA) New! |
| Power configurations | Power-on mode for AC power recovery<br>ACPI Power Management |

## SECURITY

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

## PC HEALTH MONITORING

| | |
|---|---|
| CPU | 7+1 Phase-switching voltage regulator<br>Monitors for CPU Cores, Chipset Voltages, Memory |
| Fan | Fans with tachometer monitoring<br>Pulse Width Modulated (PWM) fan connectors<br>Status monitor for speed control |

| | |
|---|---|
| Temperature | Monitoring for CPU and chassis environment<br>Thermal Control for fan connectors |

## CERTIFICATIONS

| | |
|---|---|
| Operating Systems | RHEL 9.0, Windows Server 2022, Windows Server 2025<br>View all OS Compatibility and Certification Matrix |

## CHASSIS

| | |
|---|---|
| Form Factor | 2U Rackmount |
| Model | CSE-826BTS-R1K23LPBP2 |

## DIMENSIONS AND WEIGHT

| | |
|---|---|
| Height | 3.5" (89 mm) |
| Width | 17.2" (437 mm) |
| Depth | 25.6" (650 mm) |
| Package | 11.5" (H) x 26.5" (W) x 34" (D) |
| Weight | Gross Weight: 58 lbs (26.3 kg)<br>Net Weight: 34 lbs (15.4 kg) |
| Available Color | Black |

## FRONT PANEL

| | |
|---|---|
| Buttons | Power On/Off<br>System Reset |
| LED | Device Activity<br>LAN 1 Activity<br>LAN 2 Activity<br>Power Failure LED<br>Power status<br>System information |

## EXPANSION SLOTS

| | |
|---|---|
| PCI-Express (PCIe) Configuration | Default<br>4 PCIe 5.0 x16 (in x16) LP slots<br>2 PCIe 5.0 x8 (in x8) LP slots<br>View AOC Options |

## DRIVE BAYS / STORAGE

| | |
|---|---|
| Drive Bays Configuration | Default: Total 14 bays 12 front hot-swap 3.5" SAS/SATA drive bays<br>2 rear hot-swap 2.5" SATA drive bays<br>Option A: Total 6 bays 6 front hot-swap 3.5" PCIe 5.0 x4 NVMe* drive bays<br>(*NVMe support may require additional storage controller and/or cables, please see the optional parts list for details)<br>View NVMe Options<br>View Drive Options |
| M.2 | 2 M.2 PCIe 4.0 x2 NVMe slots (M-key 2280/22110)<br>View M.2 Options |

## SYSTEM COOLING

| | |
|---|---|
| Fans | Up to 3 Heavy Duty 8cm Fan(s) |

| | |
|---|---|
| Air Shroud | 1 Air Shroud |

## POWER SUPPLY

| | |
|---|---|
| | 2x 1200W<br>2x 1200W Redundant Titanium Level (96%) Hot-plug power supplies<br>Dimension (WxHxL)<br>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)<br>Non-operating Temperature: -40°C to 60°C (-40°F to 140°F)<br>Operating Relative Humidity: 8% to 90% (Non-Condensing)<br>Non-operating Relative Humidity: 5% to 95% (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.

ISO 9001 · ISO 14001 · 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/ssg-621e-acr12h/datasheet/manufacturer