

## TECHNICAL DATASHEET

SUPERMICRO • STORAGE SERVERS

# Supermicro 4U Storage Server SSG-542B-E1CR60

4U top-loading storage server with 60 hot-swap 3.5" SAS/SATA bays and PCIe 5.0

SKU SSG-542B-E1CR60

4U

LGA4710

Supermicro



FORM FACTOR

**4U**

MAX POWER (BASE)

**349 W**

HEAT OUTPUT

**1,191 BTU/h**

PRICE

**On request**

CONFIGURE &amp; QUOTE ONLINE

[serverinvest.com/product/ssg-542b-e1cr60](https://serverinvest.com/product/ssg-542b-e1cr60)

01 Product overview

The Supermicro SSG-542B-E1CR60 is a 4U Storage Server built on Intel Xeon 6 with up to 2 TB of memory in 16 DIMM slots.

4U top-loading storage server with 60 hot-swap 3.5" SAS/SATA bays and PCIe 5.0.

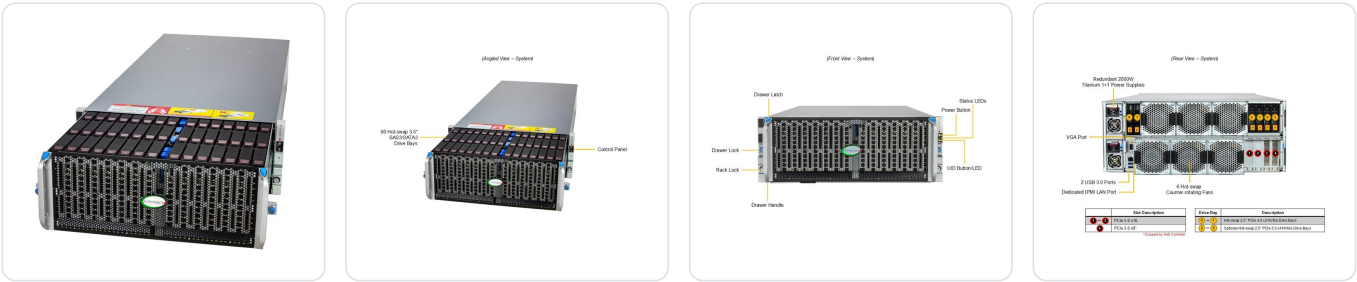
ServerInvest configures every SSG-542B-E1CR60 to order, updates BIOS and BMC firmware, installs your operating system on request and runs a 48-hour burn-in test before delivery. Every system includes a 3-year warranty.

HIGHLIGHTS

- Intel Xeon 6
- Up to 2 TB memory · 16 DIMM slots
- Total 60 bays 60 top-loading hot-swap 3.5"/2.5" SAS/SATA drive bays
- Power: 2x 2000W
- Networking: No NIC option supported

KEY SPECIFICATIONS

|                    |                           |
|--------------------|---------------------------|
| Form factor        | 4U                        |
| Processor          | Intel Xeon 6              |
| Socket             | LGA4710                   |
| Memory             | 16 DIMM slots, up to 2 TB |
| Memory type        | DDR5-6400 ECC RDIMM       |
| Drive bays         | 66 (66 NVMe)              |
| Power supply       | 2× 2000 W                 |
| Typical power draw | 450 W                     |
| Networking         | No NIC option supported   |
| Dimensions (W×H×D) | 437 × 178 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 4U Storage Server SSG-542B-E1CR60                  | 1   |
| Processor          | Intel Xeon 6505P Processor 12 Cores (48M Cache, 2.20Ghz) 150W | 1   |
| Memory             | 16GB 6400MT/s DDR5 ECC Registered DIMM Module                 | 2   |
| 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   |
|--------------|--------------|--------------|--------------------|---------------|------------|
| <b>107 W</b> | <b>234 W</b> | <b>349 W</b> | <b>1,191 BTU/h</b> | <b>0.3 kW</b> | <b>17%</b> |

Typical 234 W · max 349 W · single PSU rating 2000 W

|                                  |                                              |
|----------------------------------|----------------------------------------------|
| Annual IT energy (24/7)          | 1,716 kWh                                    |
| Annual facility energy (PUE 1.5) | 2,574 kWh                                    |
| Annual energy cost               | €343 IT · €515 incl. cooling (at 0.20 €/kWh) |
| CO <sub>2</sub> emissions / year | 0.67 t (grid factor 0.26 kg/kWh)             |
| Power supplies                   | 2× 2000 W redundant (N+1)                    |

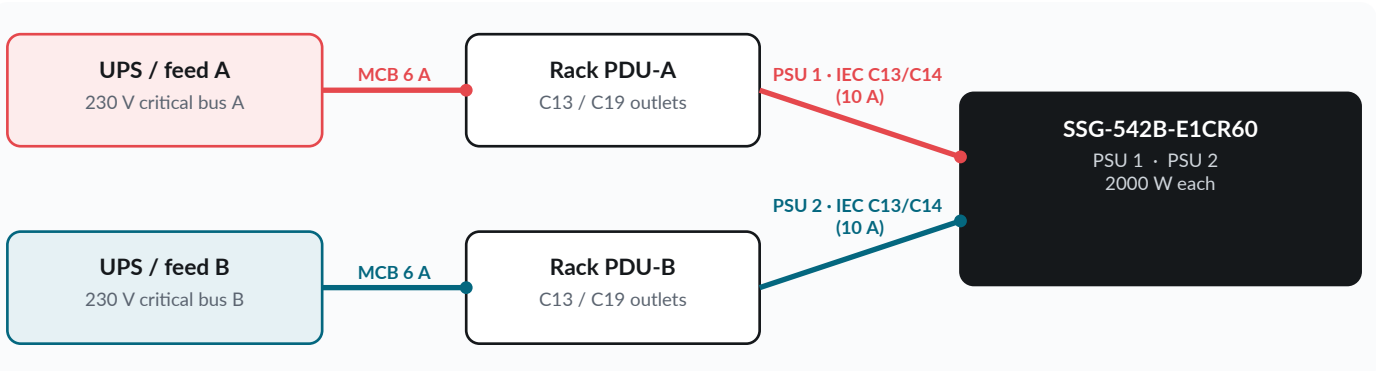
#### POWER BY COMPONENT

|                                           | IDLE | TYPICAL | MAX   |
|-------------------------------------------|------|---------|-------|
| Chassis, motherboard, fans, BMC           | 72 W | 112 W   | 160 W |
| CPU — Intel Xeon 6505P Processor 12 Cores | 23 W | 98 W    | 150 W |
| 2× Memory 16 GB DIMM                      | 6 W  | 10 W    | 18 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: 1.6 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: 349 W = 1,191 BTU/h (0.3 kW).

### 05 Full specifications

#### MOTHERBOARD

Super X14SBSC

#### PROCESSOR

CPU

Single Socket E2 (LGA-4710)

Intel Xeon 6700/6500 series processors with P-cores or 6700 series processors with E-cores

|            |                                                                                           |
|------------|-------------------------------------------------------------------------------------------|
| Core Count | P-cores: Up to 86C/144T; Up to 336MB Cache<br>E-cores: Up to 144C/144T; Up to 108MB Cache |
| Note       | Supports up to 350W TDP CPUs (Air Cooled)                                                 |

## SYSTEM MEMORY

|                |                                                                                                                                                                                  |
|----------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Memory         | Slot Count: 16 DIMM slots<br>Max Memory (1DPC): Up to 2TB 6400MT/s ECC DDR5 RDIMM<br>Max Memory (2DPC): Up to 2TB 5200MT/s ECC DDR5 RDIMM<br><a href="#">View Memory Options</a> |
| Memory Voltage | 1.1V                                                                                                                                                                             |

## ON-BOARD DEVICES

|                      |                                                             |
|----------------------|-------------------------------------------------------------|
| NVMe                 | NVMe; RAID 0/1 support<br><a href="#">View NVMe Options</a> |
| Network Connectivity | No NIC option supported<br><a href="#">View AOC Options</a> |

## INPUT / OUTPUT

|       |                                     |
|-------|-------------------------------------|
| LAN   | 1 RJ45 1 GbE Dedicated BMC LAN port |
| USB   | 2 USB 3.0 ports (rear)              |
| Video | 1 VGA port                          |
| TPM   | 1 TPM Onboard TPM & TPM Header      |

## SYSTEM BIOS

|           |                    |
|-----------|--------------------|
| BIOS Type | AMI 64MB SPI Flash |
|-----------|--------------------|

## MANAGEMENT

|                      |                                                                                                                                                                                       |
|----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Software             | SuperCloud Composer (SCC)<br>Supermicro Server Manager (SSM)<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 | 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 | Oracle Linux 9.6, RHEL 10.0, Windows Server 2025<br><a href="#">View all OS Compatibility and Certification Matrix</a> |
|-------------------|------------------------------------------------------------------------------------------------------------------------|

## CHASSIS

|             |                   |
|-------------|-------------------|
| Form Factor | 4U Rackmount      |
| Model       | CSE-947STS-R2K05P |

## DIMENSIONS AND WEIGHT

|                                |                                                                    |
|--------------------------------|--------------------------------------------------------------------|
| Height                         | 6.96" (177 mm)                                                     |
| Width                          | 17.6" (447 mm)                                                     |
| Depth                          | 32" (826 mm)                                                       |
| Package                        | N/A                                                                |
| Weight                         | Gross Weight: 170 lbs (77.11 kg)<br>Net Weight: 107 lbs (48.53 kg) |
| Palletized Packing (W x H x L) | 35.82" (805 mm) x 29.92" (755 mm) x 53.15" (1135 mm)               |
| Available Color                | N/A                                                                |

## EXPANSION SLOTS

|                                  |                                                                                                                      |
|----------------------------------|----------------------------------------------------------------------------------------------------------------------|
| PCI-Express (PCIe) Configuration | Default<br>1 PCIe 5.0 x8 (in x8) HHHL slot<br>3 PCIe 5.0 x16 (in x16) HHHL slots<br><a href="#">View AOC Options</a> |
| M.2                              | 2 M.2 PCIe 4.0 x2 NVMe slots (M-key 2280/22110)                                                                      |

## DRIVE BAYS / STORAGE

|                          |                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|--------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Drive Bays Configuration | Default: Total 60 bays 60 top-loading hot-swap 3.5"/2.5" SAS/SATA drive bays<br>Option A: Total 4 bays 4 rear hot-swap 2.5" PCIe 4.0 x4 NVMe* drive bays<br>Option B: Total 2 bays 2 internal fixed 2.5" 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><a href="#">View NVMe Options</a><br><a href="#">View Drive Options</a> |
| M.2                      | 2 M.2 PCIe 4.0 x2 NVMe slots (M-key 2280/22110)<br><a href="#">View M.2 Options</a>                                                                                                                                                                                                                                                                                                                                                         |

## SYSTEM COOLING

|      |                                                                      |
|------|----------------------------------------------------------------------|
| Fans | Up to 6 Heavy Duty 8cm Fan(s)<br>Up to 1 Counter Rotating 6cm Fan(s) |
|------|----------------------------------------------------------------------|

## POWER SUPPLY

2x 2000W  
 2x 2000W Redundant (1 + 1) Titanium Level (96%) power supplies  
 Dimension (WxHxL)  
 73.5 x 40 x 265 mm

## OPERATING ENVIRONMENT

### Environmental Spec.

Operating Temperature: 10°C to 35°C (50°F to 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)

## 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.



## 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](mailto:office@serverinvest.com)

Official manufacturer datasheet: [serverinvest.com/product/ssg-542b-e1cr60/datasheet/manufacture](https://serverinvest.com/product/ssg-542b-e1cr60/datasheet/manufacture)

