

## TECHNICAL DATASHEET

SUPERMICRO · STORAGE SERVERS

# Supermicro 2U Storage Server SSG-222B-NE3X24R

2U front-loading all-flash storage server with 24 E3.S NVMe drives and PCIe 5.0

SKU SSG-222B-NE3X24R

2U

LGA4710

Supermicro



FORM FACTOR

**2U**

MAX POWER (BASE)

**591 W**

HEAT OUTPUT

**2,016 BTU/h**

PRICE

**On request**

CONFIGURE &amp; QUOTE ONLINE

[serverinvest.com/product/ssg-222b-ne3x24r](https://serverinvest.com/product/ssg-222b-ne3x24r)

## 01 Product overview

The Supermicro SSG-222B-NE3X24R is a 2U Storage Server built on dual Intel Xeon 6 processors with up to 8 TB of memory in 32 DIMM slots.

2U front-loading all-flash storage server with 24 E3.S NVMe drives and PCIe 5.0.

The chassis accepts up to 2 GPU accelerators for AI, rendering and HPC workloads.

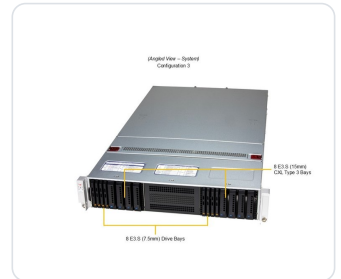
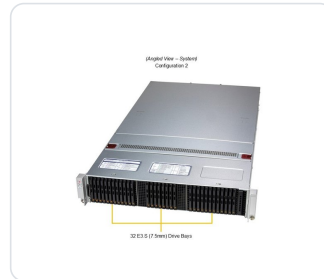
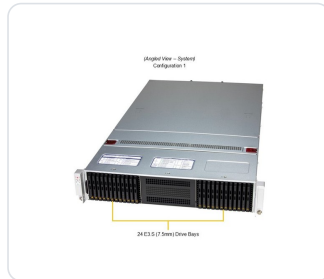
ServerInvest configures every SSG-222B-NE3X24R to order, updates BIOS and BMC firmware, installs your operating system on request and runs a 48-hour burn-in test before delivery. Every system includes a 3-year warranty.

### HIGHLIGHTS

- Dual Intel Xeon 6
- Up to 8 TB memory · 32 DIMM slots
- Total 24 bays 24 front hot-swap E3.S 1T PCIe 5.0 x4 NVMe\* drive bays
- Up to 2 GPUs
- Power: 2x 2000W
- Networking: Via AIOM

### KEY SPECIFICATIONS

|                    |                           |
|--------------------|---------------------------|
| Form factor        | 2U                        |
| Processor          | 2× Intel Xeon 6           |
| Socket             | LGA4710                   |
| Memory             | 32 DIMM slots, up to 8 TB |
| Memory type        | DDR5-6400 ECC RDIMM       |
| Drive bays         | 104 (104 NVMe)            |
| GPU                | Up to 2 GPUs              |
| Power supply       | 2× 2000 W                 |
| Typical power draw | 1650 W                    |
| Networking         | Via AIOM                  |
| 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-222B-NE3X24R                 | 1   |
| Processor          | Intel Xeon 6710E Processor 64 Cores (96M Cache, 2.40Ghz) 205W | 2   |
| Memory             | 16GB 6400MT/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 |
|-------|---------|---------|-------------|---------|----------|
| 132 W | 386 W   | 591 W   | 2,016 BTU/h | 0.6 kW  | 30%      |

Typical 386 W · max 591 W · single PSU rating 2000 W

|                                  |                                              |
|----------------------------------|----------------------------------------------|
| Annual IT energy (24/7)          | 2,714 kWh                                    |
| Annual facility energy (PUE 1.5) | 4,071 kWh                                    |
| Annual energy cost               | €543 IT · €814 incl. cooling (at 0.20 €/kWh) |
| CO <sub>2</sub> emissions / year | 1.06 t (grid factor 0.26 kg/kWh)             |
| Power supplies                   | 2× 2000 W redundant (N+1)                    |

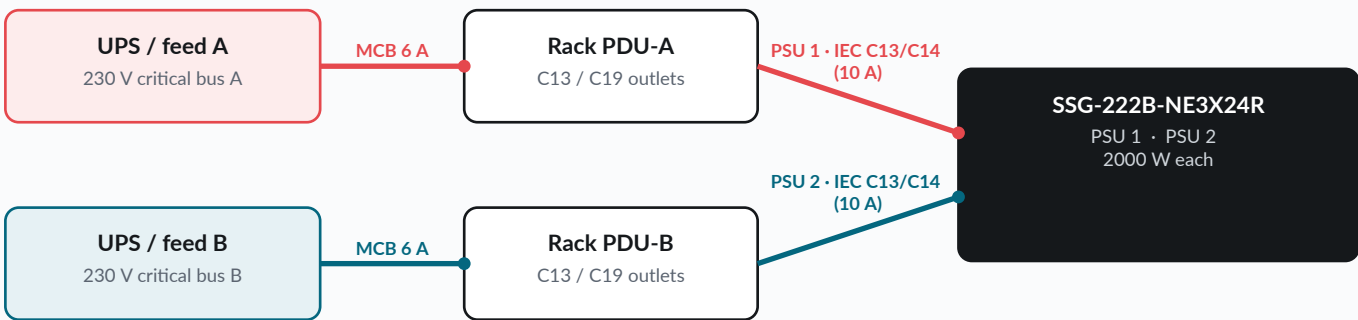
#### POWER BY COMPONENT

|                                              | IDLE | TYPICAL | MAX   |
|----------------------------------------------|------|---------|-------|
| Chassis, motherboard, fans, BMC              | 50 W | 77 W    | 110 W |
| 2× CPU — Intel Xeon 6710E Processor 64 Cores | 62 W | 266 W   | 410 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: 2.7 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: 591 W = 2,016 BTU/h (0.6 kW).

### 05 Full specifications

#### MOTHERBOARD

Super X14DBHM

#### PROCESSOR

CPU

Dual 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/172T; Up to 336MB Cache per CPU<br>E-cores: Up to 144C/144T; Up to 108MB Cache per CPU |
| Note       | Supports up to 350W TDP CPUs (Air Cooled)                                                                 |

## GPU

|               |                                                  |
|---------------|--------------------------------------------------|
| Max GPU Count | Up to 2 double-width GPUs                        |
| Supported GPU | NVIDIA PCIe: L40S, RTX A2000<br>View GPU Options |

## SYSTEM MEMORY

|                |                                                                                                                                                                                           |
|----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Memory         | Slot Count: 32 DIMM slots/2 Channels<br>Max Memory (1DPC): Up to 4TB 6400MT/s ECC DDR5 RDIMM/LRDIMM<br>Max Memory (2DPC): Up to 8TB 5200MT/s ECC DDR5 RDIMM/LRDIMM<br>View Memory Options |
| Memory Voltage | 1.1V                                                                                                                                                                                      |

## ON-BOARD DEVICES

|                      |                                                   |
|----------------------|---------------------------------------------------|
| Network Connectivity | Via AIOM<br>View AIOM Options<br>View AOC Options |
|----------------------|---------------------------------------------------|

## INPUT / OUTPUT

|       |                                                                          |
|-------|--------------------------------------------------------------------------|
| LAN   | 1 RJ45 1 GbE Dedicated BMC LAN port                                      |
| USB   | 1 USB 3.0 port (Rear) (via DC-SCM)<br>1 USB 2.0 port (Rear) (via DC-SCM) |
| Video | 1 VGA port                                                               |

## 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! |
|----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

## 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 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 | Oracle Linux 9.4, RHEL 10.0<br><a href="#">View all OS Compatibility and Certification Matrix</a> |
|-------------------|---------------------------------------------------------------------------------------------------|

## CHASSIS

|             |                  |
|-------------|------------------|
| Form Factor | 2U Rackmount     |
| Model       | CSE-246E3-R2K09P |

## DIMENSIONS AND WEIGHT

|                 |                                                                  |
|-----------------|------------------------------------------------------------------|
| Height          | 3.47" (88 mm)                                                    |
| Width           | 17.25" (438 mm)                                                  |
| Depth           | 30.7" (780 mm)                                                   |
| Package         | 9.4" (H) x 23.5" (W) x 43.2" (D)                                 |
| Weight          | Gross Weight: 83.78 lbs (38 kg)<br>Net Weight: 61.73 lbs (28 kg) |
| Available Color | Silver                                                           |

## FRONT PANEL

|         |                                                                                                                   |
|---------|-------------------------------------------------------------------------------------------------------------------|
| Buttons | UID button                                                                                                        |
| LED     | HDD activity<br>LAN1 activity<br>LAN2 activity<br>Power Fail<br>Power status<br>System information (overheat/UID) |

## EXPANSION SLOTS

|                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|----------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| PCI-Express (PCIe) Configuration | Default<br>2 PCIe 5.0 x16 FHFL double-width slots<br>2 PCIe 5.0 x16 AIOM slots (OCP 3.0 compatible)<br>1 PCIe 5.0 x8 FHFL slot<br>Option A<br>2 PCIe 5.0 x16 FHFL double-width slots<br>2 PCIe 5.0 x16 AIOM slots (OCP 3.0 compatible)<br>1 PCIe 5.0 x8 FHFL slot<br>Option B<br>2 PCIe 5.0 x16 AIOM slots (OCP 3.0 compatible)<br>1 PCIe 5.0 x8 FHFL slot<br>Option C<br>2 PCIe 5.0 x16 FHFL double-width slots<br>2 PCIe 5.0 x16 AIOM slots (OCP 3.0 compatible)<br>1 PCIe 5.0 x8 FHFL slot<br>View AOC Options |
|----------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

|             |                                   |
|-------------|-----------------------------------|
| CXL Support | Up to 8 CXL 2.0 x8 Type 3 devices |
|-------------|-----------------------------------|

## DRIVE BAYS / STORAGE

|                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|--------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Drive Bays Configuration | Default: Total 24 bays 24 front hot-swap E3.S 1T PCIe 5.0 x4 NVMe* drive bays<br>Option A: Total 24 bays 24 front hot-swap E3.S 1T PCIe 5.0 x4 NVMe* drive bays<br>Option B: Total 32 bays 32 front hot-swap E3.S 1T PCIe 5.0 x4 NVMe drive bays<br>Option C: Total 16 bays 8 front hot-swap E3.S 1T PCIe 5.0 x4 NVMe* drive bays<br>8 front fixed E3.S 2T PCIe 5.0 x8 CXL Type 3* drive bays<br>(*CXL Type 3/NVMe support may require additional storage controller and/or cables, please see the optional parts list for details)<br>View NVMe Options |
|--------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

|     |                                                         |
|-----|---------------------------------------------------------|
| M.2 | 2 M.2 NVMe slots (M-key 2280/22110)<br>View M.2 Options |
|-----|---------------------------------------------------------|

## SYSTEM COOLING

|            |                                                             |
|------------|-------------------------------------------------------------|
| Fans       | Up to 4x 8cm heavy duty fans with optimal fan speed control |
| Air Shroud | 1 Air Shroud                                                |

## POWER SUPPLY

2x 2000W  
2x 2000W Redundant (1 + 1) Titanium Level (96%) power supplies  
Dimension (WxHxL)  
73.5 x 40 x 185 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.



## 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-222b-ne3x24r/datasheet/manufactur](https://serverinvest.com/product/ssg-222b-ne3x24r/datasheet/manufactur)

