

## TECHNICAL DATASHEET

SUPERMICRO • MULTI-NODE &amp; TWIN

# Supermicro BigTwin SuperServer SYS-221BT-HNTR

2U 4-Node BigTwin with 6 hot-swap 2.5" NVMe/SATA drives per node

SKU SYS-221BT-HNTR

2U

LGA4677

Supermicro



FORM FACTOR

**2U**

MAX POWER (BASE)

**474 W**

HEAT OUTPUT

**1,617 BTU/h**

PRICE

**from €23,690**

CONFIGURE &amp; QUOTE ONLINE

[serverinvest.com/product/sys-221bt-hntr](https://serverinvest.com/product/sys-221bt-hntr)

01 Product overview

The Supermicro SYS-221BT-HNTR is a 2U BigTwin Server built on dual Intel Xeon Scalable 4th/5th Gen processors with up to 4 TB of memory in 16 DIMM slots.

2U 4-Node BigTwin with 6 hot-swap 2.5" NVMe/SATA drives per node.

ServerInvest configures every SYS-221BT-HNTR 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 6 bays 2 front hot-swap 2.5" PCIe 5.0 NVMe/SATA drive bays
- Power: 2x 3000W
- Networking: Via AIOM

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         | 6 (10 NVMe)                        |
| Power supply       | 2× 3000 W                          |
| Typical power draw | 830 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 BigTwin SuperServer SYS-221BT-HNTR                              | 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   |

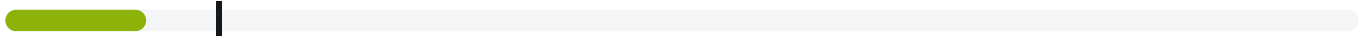
Base configuration from

€23,690  
excl. VAT

### 03 Power & thermal

Calculated for the base configuration

| IDLE         | TYPICAL      | MAXIMUM      | HEAT (MAX)         | COOLING       | PSU LOAD   |
|--------------|--------------|--------------|--------------------|---------------|------------|
| <b>115 W</b> | <b>312 W</b> | <b>474 W</b> | <b>1,617 BTU/h</b> | <b>0.5 kW</b> | <b>16%</b> |



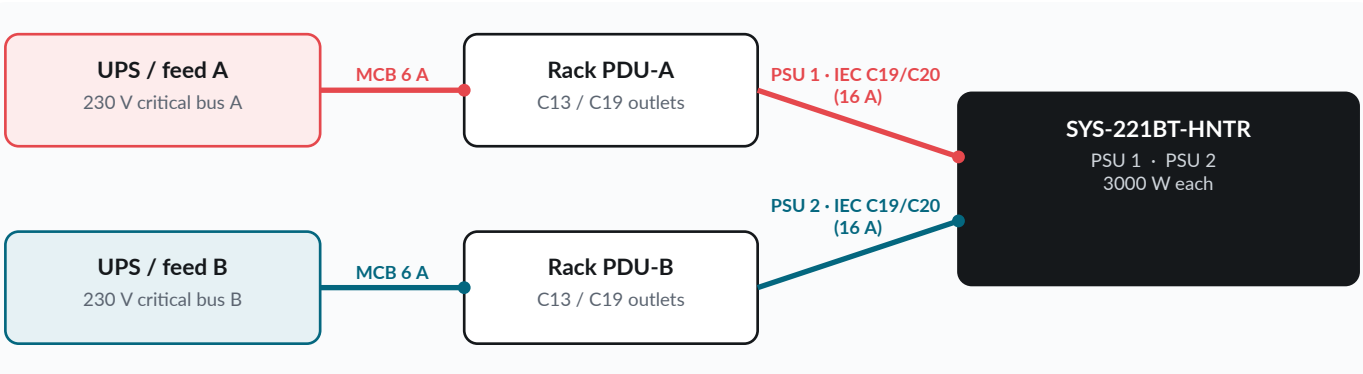
|                                  |                                              |
|----------------------------------|----------------------------------------------|
| Annual IT energy (24/7)          | 2,215 kWh                                    |
| Annual facility energy (PUE 1.5) | 3,323 kWh                                    |
| Annual energy cost               | €443 IT · €665 incl. cooling (at 0.20 €/kWh) |
| CO <sub>2</sub> emissions / year | 0.86 t (grid factor 0.26 kg/kWh)             |
| Power supplies                   | 2× 3000 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 C19/C20 (16 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 X13DET-B                                                                                                                                                 |
| PROCESSOR (PER NODE) |                                                                                                                                                                |
| CPU                  | Dual Socket E (LGA-4677)<br>5th Gen Intel Xeon / 4th Gen Intel Xeon Scalable processors<br>Supports Intel Xeon CPU Max Series with high bandwidth memory (HBM) |

|            |                                                                                                                                                                                                                              |
|------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Core Count | Up to 64C/128T; Up to 320MB Cache per CPU                                                                                                                                                                                    |
| Note       | Supports up to 300W TDP CPUs (Air Cooled)*<br>Supports up to 350W TDP CPUs (Liquid Cooled)<br>*Air Cooled CPUs with TDP over 205W only supported under specific conditions. Contact a Supermicro representative for details. |

## SYSTEM MEMORY (PER NODE)

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

## ON-BOARD DEVICES (PER NODE)

|                      |                                                                                   |
|----------------------|-----------------------------------------------------------------------------------|
| Network Connectivity | Via AIOM<br><a href="#">View AIOM Options</a><br><a href="#">View AOC Options</a> |
|----------------------|-----------------------------------------------------------------------------------|

## INPUT / OUTPUT (PER NODE)

|       |                                     |
|-------|-------------------------------------|
| LAN   | 1 RJ45 1 GbE Dedicated BMC LAN port |
| USB   | 2 USB 3.0 Gen2 Type-A ports (Rear)  |
| Video | 1 VGA port                          |

## SYSTEM BIOS

|           |                    |
|-----------|--------------------|
| BIOS Type | AMI 32MB Flash ROM |
|-----------|--------------------|

## 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 | ACPI/APM 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 | 8+4 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                                                                        |

## CERTIFICATIONS

|                      |                                                                                                                                                                                                               |
|----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Operating Systems    | ESXi 7.0 U3, ESXi 8.0, Hypervisor 8.2.1, Oracle Linux 9.0, RHEL 9.0, SLES 15 SP4, SLES 15 SP5, Windows Server 2022, Windows Server 2025<br><a href="#">View all OS Compatibility and Certification Matrix</a> |
| Enterprise Solutions | VMWare vSAN                                                                                                                                                                                                   |

## CHASSIS

|             |                   |
|-------------|-------------------|
| Form Factor | 2U Rackmount      |
| Model       | CSE-217BQ2-R3K04P |

## DIMENSIONS AND WEIGHT

|                 |                                                                  |
|-----------------|------------------------------------------------------------------|
| Height          | 3.47" (88 mm)                                                    |
| Width           | 17.68" (449 mm)                                                  |
| Depth           | 28.75" (730 mm)                                                  |
| Package         | 9.76" (H) x 24.65" (W) x 45.28" (D)                              |
| Weight          | Gross Weight: 96.6 lbs (43.8 kg)<br>Net Weight: 66.1 lbs (30 kg) |
| Available Color | Black front & silver body                                        |

## FRONT PANEL

|         |                                                                                                  |
|---------|--------------------------------------------------------------------------------------------------|
| Buttons | Power On/Off button<br>UID button                                                                |
| LED     | HDD activity LED<br>Network activity LEDs<br>Power status LED<br>Universal Information (UID) LED |

## EXPANSION SLOTS (PER NODE)

|                                  |                                                                                                                         |
|----------------------------------|-------------------------------------------------------------------------------------------------------------------------|
| PCI-Express (PCIe) Configuration | Default<br>2 PCIe 5.0 x16 LP slots<br>1 PCIe 5.0 x16 AIOM slot (OCP 3.0 compatible)<br><a href="#">View AOC Options</a> |
|----------------------------------|-------------------------------------------------------------------------------------------------------------------------|

## DRIVE BAYS / STORAGE (PER NODE)

|                          |                                                                                                                                                                                                             |
|--------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Drive Bays Configuration | Default: Total 6 bays 2 front hot-swap 2.5" PCIe 5.0 NVMe/SATA drive bays<br>4 front hot-swap 2.5" PCIe 4.0 NVMe/SATA drive bays<br><a href="#">View NVMe Options</a><br><a href="#">View Drive Options</a> |
| M.2                      | 2 M.2 PCIe 4.0 x4 NVMe slots (M-key 22110(default); VROC required for RAID)<br><a href="#">View M.2 Options</a>                                                                                             |

## SYSTEM COOLING

|      |                                              |
|------|----------------------------------------------|
| Fans | Up to 4x 16K RPM Counter Rotating 8cm Fan(s) |
|------|----------------------------------------------|

|                |                                            |
|----------------|--------------------------------------------|
| Air Shroud     | 4 Air Shrouds                              |
| Liquid Cooling | Direct to Chip (D2C) Cold Plate (optional) |

## POWER SUPPLY

2x 3000W  
2x 3000W Redundant (1 + 1) Titanium Level (96%) power supplies  
Dimension (WxHxL)  
45 x 40 x 480 mm

## OPERATING ENVIRONMENT

|                     |                                                                                                                                                                                                                                                        |
|---------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| RoHS                | RoHS Compliant                                                                                                                                                                                                                                         |
| Environmental Spec. | <p>Operating Temperature: 10°C to 35°C (50°F to 95°F)<br/> Non-operating Temperature: -30°C to 60°C (-22°F to 140°F)<br/> Operating Relative Humidity: 8% to 80% (non-condensing)<br/> Non-operating Relative Humidity: 8% to 90% (non-condensing)</p> |

## ENVIRONMENTAL / RECYCLING

|         |                                   |
|---------|-----------------------------------|
| Recycle | Return Server-End of Life Product |
|---------|-----------------------------------|

## 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/sys-221bt-hntr/datasheet/manufacture](https://serverinvest.com/product/sys-221bt-hntr/datasheet/manufacture)

