

## TECHNICAL DATASHEET

SUPERMICRO · MULTI-NODE &amp; TWIN

# Supermicro 2U BigTwin Server SYS-222BT-HNC9R

The Supermicro SYS-222BT-HNC9R is a 2U 4-node BigTwin server with dual Intel Xeon 6 processors and up to 4TB DDR5 memory per node, as well as advanced hardware SAS RAID 0/1/5/10 support – built for mission-critical HPC, virtualized big data analytics, and high-density storage RAID array deployments.

SKU SYS-222BT-HNC9R

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/sys-222bt-hnc9r](https://serverinvest.com/product/sys-222bt-hnc9r)

01 **Product overview**

The Supermicro SYS-222BT-HNC9R is a 2U BigTwin Server built on dual Intel Xeon 6 processors with up to 4 TB of memory in 16 DIMM slots.

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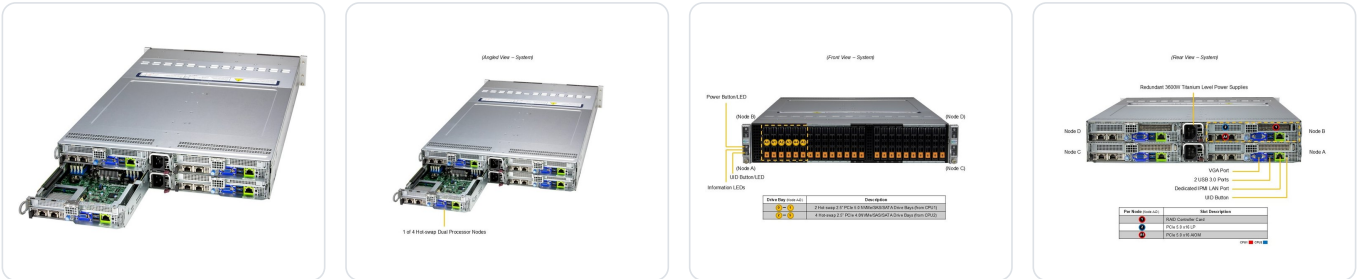
ServerInvest configures every SYS-222BT-HNC9R to order, updates BIOS and BMC firmware, installs your operating system on request and runs a 48-hour burn-in test before delivery. Every system includes a 3-year warranty.

**KEY SPECIFICATIONS**

|                    |                           |
|--------------------|---------------------------|
| Form factor        | 2U                        |
| Processor          | 2× Intel Xeon 6           |
| Socket             | LGA4710                   |
| Memory             | 16 DIMM slots, up to 4 TB |
| Memory type        | DDR5-6400 ECC RDIMM       |
| Drive bays         | 10 (10 NVMe)              |
| Power supply       | 2× 3600 W                 |
| Typical power draw | 750 W                     |
| Networking         | Via AIOM                  |
| Dimensions (W×H×D) | 437 × 89 mm               |

**HIGHLIGHTS**

- Dual Intel Xeon 6
- Up to 4 TB memory · 16 DIMM slots
- Total 6 bays 2 front hot-swap 2.5" PCIe 5.0 NVMe/SAS drive bays
- Power: 2x 3600W
- Networking: Via AIOM



02 **Base configuration**

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

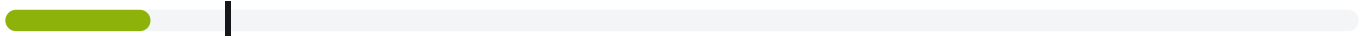
| COMPONENT          | DESCRIPTION                                                   | QTY |
|--------------------|---------------------------------------------------------------|-----|
| Base system        | Supermicro 2U BigTwin Server SYS-222BT-HNC9R                  | 1   |
| Processor          | 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   |
|--------------|--------------|--------------|--------------------|---------------|------------|
| <b>132 W</b> | <b>386 W</b> | <b>591 W</b> | <b>2,016 BTU/h</b> | <b>0.6 kW</b> | <b>16%</b> |



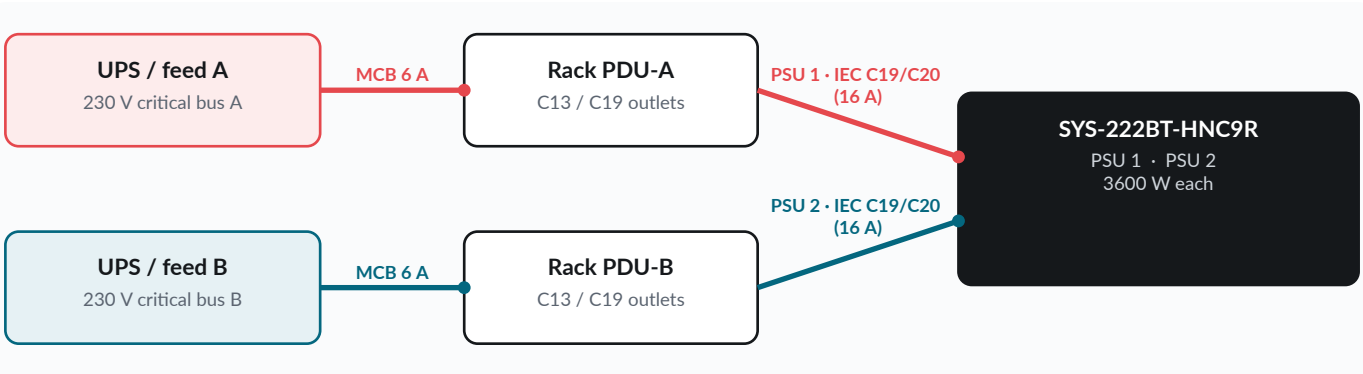
|                                  |                                              |
|----------------------------------|----------------------------------------------|
| Annual IT energy (24/7)          | 2,714 kWh                                    |
| Annual facility energy (PUE 1.5) | 4,071 kWh                                    |
| 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× 3600 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 C19/C20 (16 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 X14DBT-B

#### PROCESSOR (PER NODE)

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 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 6400MT/s ECC DDR5 RDIMM<br><a href="#">View Memory Options</a> |
| Memory Voltage | 1.1V                                                                                                                     |

## ON-BOARD DEVICES (PER NODE)

|                      |                                                                                   |
|----------------------|-----------------------------------------------------------------------------------|
| SAS                  | SAS (12Gbps) via Broadcom 3908; RAID 0/1/5/10 support(IR mode)                    |
| 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>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 | Oracle Linux 9.4, RHEL 9.4, RHEL 10.0, Windows Server 2022, Windows Server 2025<br><a href="#">View all OS Compatibility and Certification Matrix</a> |
|-------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|

## CHASSIS

|             |                   |
|-------------|-------------------|
| Form Factor | 2U Rackmount      |
| Model       | CSE-217BQ2-R3K60P |

## 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>1 PCIe 5.0 x16 LP slot<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/SAS drive bays<br>4 front hot-swap 2.5" PCIe 4.0 NVMe/SAS drive bays<br><a href="#">View NVMe Options</a><br><a href="#">View Drive Options</a> |
| M.2                      | 2 M.2 PCIe 5.0 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 80x80x56mm Fan(s) |
| Air Shroud     | 4 Air Shrouds                                       |
| Liquid Cooling | Direct to Chip (D2C) Cold Plate (optional)          |

## POWER SUPPLY

2x 3600W  
2x 3600W Redundant (1 + 1) Titanium Level (96%) power supplies  
Dimension (WxHxL)  
45 x 40 x 480 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 (-22°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.



## 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-222bt-hnc9r/datasheet/manufacture](https://serverinvest.com/product/sys-222bt-hnc9r/datasheet/manufacture)

