

TECHNICAL DATASHEET

SUPERMICRO · MULTI-NODE & TWIN

Supermicro 2U BigTwin Server SYS-222BT-DNR

The Supermicro SYS-222BT-DNR is a 2U 2-node BigTwin server with dual Intel Xeon 6 processors, up to 4TB DDR5 memory, and 12 front hot-swap PCIe 5.0 NVMe drive bays per node — purpose-built for all-flash NVMe storage, high-performance file system, diskless HPC cluster, and big data analytics & AI workloads.

SKU SYS-222BT-DNR

2U

LGA4710

Supermicro



FORM FACTOR

2U



MAX POWER (BASE)

591 W



HEAT OUTPUT

2,016 BTU/h

PRICE

On request

CONFIGURE & QUOTE ONLINE

serverinvest.com/product/sys-222bt-dnr


01 **Product overview**

The Supermicro SYS-222BT-DNR 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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The chassis accepts up to 1 GPU accelerators for AI, rendering and HPC workloads.

ServerInvest configures every SYS-222BT-DNR 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	12 (12 NVMe)
GPU	Up to 1 GPUs
Power supply	2× 2200 W
Typical power draw	1200 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 12 bays 12 front hot-swap 2.5" PCIe 5.0 NVMe drive bays
- Up to 1 GPUs
- Power: 2x 2200W
- Networking: Via AIOM



02 **Base configuration**

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

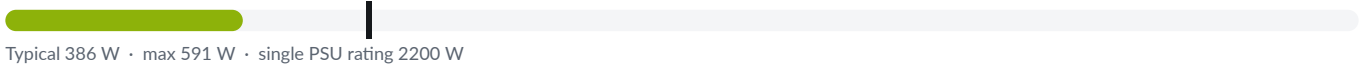
COMPONENT	DESCRIPTION	QTY
Base system	Supermicro 2U BigTwin Server SYS-222BT-DNR	1
Processor	Intel Xeon 6710E Processor 64 Cores (96M Cache, 2.40Ghz) 205W	2
Memory	16GB 6400MT/s DDR5 ECC Registered DIMM Module	4
Warranty & support	3-year return-to-base warranty (included)	1

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	27%



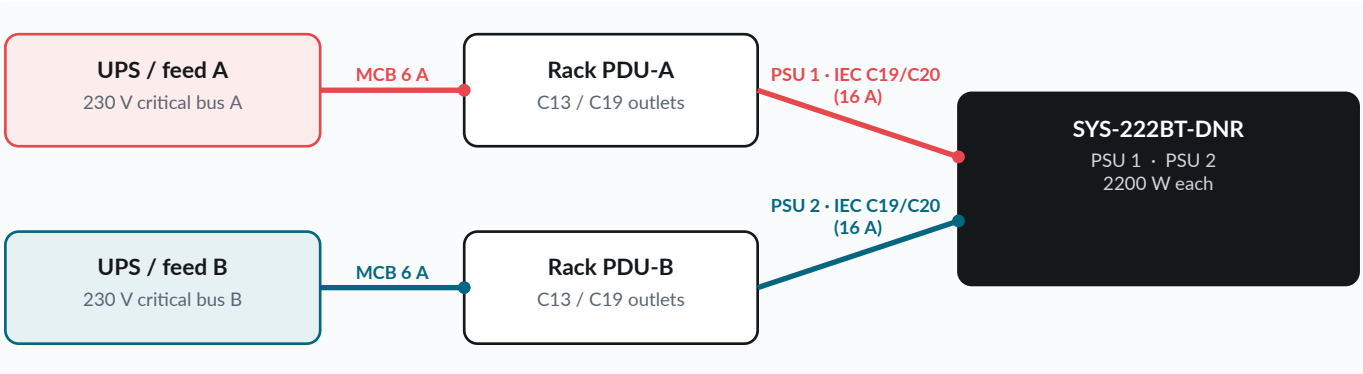
Annual IT energy (24/7)	2,714 kWh
Annual facility energy (PUE 1.5)	4,071 kWh
Annual energy cost	€543 IT · €814 incl. cooling (at 0.20 €/kWh)
CO ₂ emissions / year	1.06 t (grid factor 0.26 kg/kWh)
Power supplies	2× 2200 W redundant (N+1)

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 E-cores: Up to 144C/144T; Up to 108MB Cache per CPU
Note	Supports up to 350W TDP CPUs (Air Cooled)* Supports up to 350W TDP CPUs (Liquid Cooled) *Air Cooled CPUs with TDP over 250W only supported under specific conditions. Contact a Supermicro representative for details.

GPU (PER NODE)

Max GPU Count	Up to 1 double-width or 1 single-width GPU
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SYSTEM MEMORY (PER NODE)

Memory	Slot Count: 16 DIMM slots Max Memory (1DPC): Up to 4TB 6400MT/s ECC DDR5 RDIMM View Memory Options
Memory Voltage	1.1V

ON-BOARD DEVICES (PER NODE)

Network Connectivity	Via AIOM View AIOM Options View AOC Options
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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
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MANAGEMENT

Software	SuperCloud Composer (SCC) Supermicro Server Manager (SSM) Super Diagnostics Offline (SDO) Supermicro Thin-Agent Service (TAS) SuperServer Automation Assistant (SAA) New!
Power configurations	ACPI/APM Power Management

SECURITY

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

PC HEALTH MONITORING

CPU	8+4 Phase-switching voltage regulator Monitors for CPU Cores, Chipset Voltages, Memory.
Fan	Fans with tachometer monitoring Pulse Width Modulated (PWM) fan connectors 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 View all OS Compatibility and Certification Matrix
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CHASSIS

Form Factor	2U Rackmount
Model	CSE-217BD2-R2K22P

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: 80.7 lbs (36.6 kg) Net Weight: 55.1 lbs (25 kg)
Available Color	Black front & silver body

FRONT PANEL

Buttons	Power On/Off button UID button
LED	HDD activity LED Network activity LEDs Power status LED Universal Information (UID) LED

EXPANSION SLOTS (PER NODE)

PCI-Express (PCIe) Configuration	Default 2 PCIe 5.0 x8 LP slots 1 PCIe 5.0 x16 LP slot 1 PCIe 5.0 x16 AIOM slot (OCP 3.0 compatible) Option A 1 PCIe 4.0 x16 FHFL slot 1 PCIe 5.0 x16 LP slot View AOC Options
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DRIVE BAYS / STORAGE (PER NODE)

Drive Bays Configuration	Default: Total 12 bays 12 front hot-swap 2.5" PCIe 5.0 NVMe drive bays View NVMe Options
M.2	2 M.2 PCIe 5.0 x4 NVMe slots (M-key 22110(default); VROC required for RAID) View M.2 Options

SYSTEM COOLING

Fans	Up to 4x 16.5K RPM Heavy Duty 80x80x38mm Fan(s) Up to 4x 16k RPM Counter Rotating 80x80x56mm Fan(s) (optional)
Air Shroud	2 Air Shrouds
Liquid Cooling	Direct to Chip (D2C) Cold Plate (optional)

POWER SUPPLY

2x 2200W
 2x 2200W 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

Official manufacturer datasheet: serverinvest.com/product/sys-222bt-dnr/datasheet/manufacture

