BigTwin SuperServer SYS-221BT-HNC9R
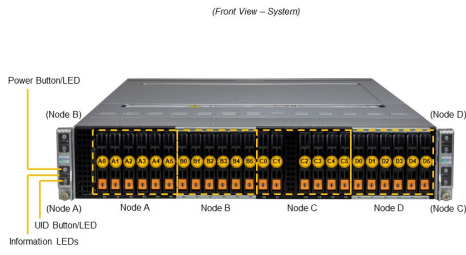
Key Applications

Mission Critical HPC, Virtualized Big Data Analytics, High-Density Storage RAID Array,
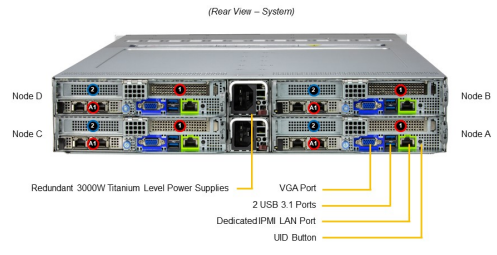
Key Features

- Socket E (LGA 4677) support 4th Gen Intel® Xeon® Scalable processors;
- Intel® C741;
- Up to 16 DIMMs ECC DDR5 Slots;
- Internal PCIe 4.0 x8 for 2 M.2 NVMe support onboard; 1 PCIe 5.0 x16 (LP) slot; Tool-less support; Optional M.2 NVMe Boot Controller via SCC-A2NM2241G3-B1;
- Network connectivity via AIOM (OCP 3.0 compliant);
- Built-in SAS3 Support via Broadcom 3908; IT Mode; 6 hot-swap 2.5" drive bays (2x PCIe 5.0 NVMe and 4x PCIe 4.0 NVMe/SAS);
- Liquid Cooling Support; 4 cooling fans per 2U enclosure, 16K RPM; Shared Cooling Design, Counter-Rotating;
- 3000W Redundant Power Supplies Titanium Level (96%+); Shared Power Design;

Form Factor	2U Rackmount Enclosure: 449 x 88 x 730mm (17.68" x 3.47" x 28.75") Package: 626 x 248 x 1150mm (24.65" x 9.76" x 45.28")
Processor	4th Gen Intel® Xeon® Scalable processors Dual Socket LGA 4677 (Socket E) supported Intel Xeon CPU Max Series with high bandwidth memory (HBM) (Supports up to 350W TDP CPUs (Liquid Cooled), Supports up to 205W TDP CPUs (Aircooled)*, *CPUs (air cooled) with TDP over 205W are only supported under specific conditions. Contact customer support for details.)
Drive Bays	6x 2.5" hot-swap NVMe/SAS drive bays; Optional RAID support via Broadcom® 3908 AOC
Expansion Slots	1 PCIe 5.0 x16 LP slot(s)
On-Board Devices	SAS: SAS3 (12Gbps) via Broadcom® 3908; RAID 0, 1, 5, 6, 10, 50 support Chipset: Intel® C741 Network Connectivity: Via AIOM IPMI: Support for Intelligent Platform Management Interface v.2.0 IPMI 2.0 with virtual media over LAN and KVM-over-LAN support

Input / Output	LAN: 1 RJ45 Dedicated BMC LAN port
	USB: 2 USB 3.1 port(s) (2 rear)
	Video: 1 VGA port(s)
	Others: 2x M.2 for boot drive or caching
	     M.2 form factor: NVMe double-sided 22x110mm
	     Note: Enterprise-grade M.2 only for caching application

(Front View – System)

(Rear View – System)

Drive Bay (Node A-D)	Description
0 – 1	2x 2.5" Hot-Swap NVMe Gen5 (CPU1)/SAS Drive Bays
2 – 5	4x 2.5" Hot-Swap NVMe Gen4 (CPU2)/SAS Drive Bays

Slot (Node A-D)	Description
A1	PCIe 5.0 x16 AIOM Slot
1	RAID Controller Card
2	PCIe 5.0 x16 (LP) Slot

CPU1 ■ CPU2 ■

System Cooling	4x 16K RPM Counter Rotating 8cm Fan(s) Liquid Cooling: Direct to Chip (D2C) Cold Plate (optional)
Power Supply	3000W 1U Redundant Power Supply Dimension (W x H x L): 45 x 40 x 480 mm
System BIOS	BIOS Type: AMI 32MB Flash ROM
Management	SuperDoctor® 5; Watch Dog; SUM; IPMI 2.0; KVM with dedicated LAN; SPM; Intel® Node Manager; SSM; SuperCloud Composer; Supemicro Out of Band (OOB) License (Included per Node)

PC Health Monitoring	FAN: Fans with tachometer monitoring
	    Status monitor for speed control
	    Pulse Width Modulated (PWM) fan connectors
	Temperature: Monitoring for CPU and chassis environment
	CPU: Monitors for CPU Cores, Chipset Voltages, Memory.
	    8+4 Phase-switching voltage regulator

Dimensions and Weight	Height: 3.47" (88 mm) Width: 17.68" (449 mm) Depth: 28.75" (730 mm) Gross Weight: 96.6 lbs (43.8 kg) Net Weight: 66.1 lbs (30 kg) Packaging: 9.76" (H) x 24.65" (W) x 45.28" (D) Available Color: Black front & silver body
Operating Environment	ROHS: RoHS Compliant Operating Temperature: 10°C ~ 35°C (50°F ~ 95°F) Non-operating Temperature: -40°C to 60°C (-40°F to 140°F) Operating Relative Humidity: 8% to 90% (Non-Condensing) Non-operating Relative Humidity: 5% to 95% (Non-Condensing)
Motherboard	[Super X13DET-B](#)
Chassis	CSE-217BQ2-R3K04P