BigTwin SuperServer SYS-221BT-DNTR

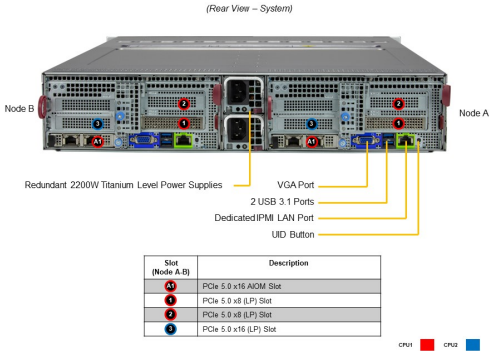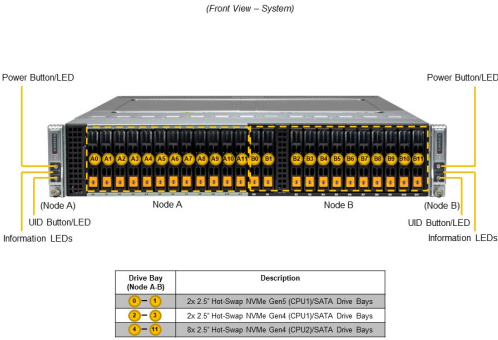2U 2-Node BigTwin with 12 hot-swap 2.5" NVMe/SATA drives per node

Key Applications

High-Performance File System, Diskless HPC Clusters, Scale Out All-Flash NVMe Storage, Big Data Analytics and AI,

Key Features

- Two hot-pluggable systems (nodes) in a 2U form factor. Each node supports the following:;
- Socket E (LGA 4677) support 5th/4th Gen Intel® Xeon® Scalable processors;
- Intel® C741;
- 16 DIMM Slots supporting up to 4TB of memory; ECC RDIMMs up to DDR5-5600;
- Internal PCIe 4.0 x8 for 2 M.2 NVMe support onboard
  1 PCIe 5.0 x16 (LP) slot; 2 PCIe 5.0 x8 (LP) slot; Tool-less support
  Optional M.2 (22x80) HW RAID1 NVMe Boot Controller via SCC-A2NM2241G3-B1;
- Network connectivity via AIOM (OCP 3.0 compliant);
- 12 hot-Swap 2.5" drive bays (2x PCIe 5.0 NVMe/SATA and 10x PCIe 4.0 NVMe/SATA);
- Liquid Cooling Support
  4 cooling fans per 2U enclosure, 16.5K RPM; Shared Cooling Design;
- 2200W 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	Dual Socket E (LGA-4677) 5th Gen Intel® Xeon® / 4th Gen Intel® Xeon® Scalable processors Supports Intel Xeon CPU Max Series with high bandwidth memory (HBM) Up to 64C/128T; Up to 320MB Cache per CPU
GPU	Up to 1 double-width or 1 single-width GPU
System Memory	Slot Count: 16 DIMM slots Max Memory (1DPC): Up to 4TB 5600MT/s ECC DDR5 RDIMM
Drive Bays Configuration	Default: Total 12 bays • 2 front hot-swap 2.5" PCIe 5.0 NVMe/SATA drive bays • 10 front hot-swap 2.5" PCIe 4.0 NVMe/SATA drive bays M.2: 2 M.2 PCIe 4.0 x4 NVMe slots (M-key 22110(default); VROC required for RAID)
Expansion Slots	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
On-Board Devices	Chipset: Intel® C741 Network Connectivity: Via AIOM
Input / Output	LAN: 1 RJ45 1 GbE Dedicated BMC LAN port USB: 2 USB 3.0 Gen2 Type-A ports(Rear) Video: 1 VGA port

(Front View – System)

(Rear View – System)

Power Button/LED
Power Button/LED
(Node A)
Node A
Node B
(Node B)
UID Button/LED
UID Button/LED
Information LEDs
Information LEDs

Node B
Node A
Redundant 2200W Titanium Level Power Supplies
VGA Port
2 USB 3.1 Ports
Dedicated IPMI LAN Port
UID Button

Drive Bay (Node A-B)	Description
0 — 1	2x 2.5" Hot-Swap NVMe Gen5 (CPU1)/SATA Drive Bays
2 — 3	2x 2.5" Hot-Swap NVMe Gen4 (CPU1)/SATA Drive Bays
4 — 11	8x 2.5" Hot-Swap NVMe Gen4 (CPU2)/SATA Drive Bays

Slot (Node A-B)	Description
A1	PCIe 5.0 x16 AIOM Slot
1	PCIe 5.0 x8 (LP) Slot
2	PCIe 5.0 x8 (LP) Slot
3	PCIe 5.0 x16 (LP) Slot

CPU1 CPU2

System Cooling	Fans: Up to 4x 16.5K RPM Heavy Duty 8cm Fan(s)
	Air Shroud: 2 Air Shrouds
	Liquid Cooling: Direct to Chip (D2C) Cold Plate (optional)
Power Supply	2x 2200W Redundant (1 + 1) Titanium Level (96%) power supplies
System BIOS	BIOS Type: AMI 32MB Flash ROM
Management	SuperCloud Composer®; Supermicro Server Manager (SSM); Supermicro Update Manager (SUM); Supermicro SuperDoctor® 5 (SD5); Super Diagnostics Offline (SDO); Supermicro Thin-Agent Service (TAS); SuperServer Automation Assistant (SAA) New!
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	Weight: Gross Weight: 80.7 lbs (36.6 kg)
	Net Weight: 55.1 lbs (25 kg)
	Available Color: Black front & silver body
Operating Environment	RoHS Compliant
	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)
Motherboard	**Super X13DET-B**
Chassis	**CSE-217BD2-R2K22P**