# IoT SuperServer SYS-322GA-NR

3U Intel DP Edge Data Center System with Up to 10 PCIe 5.0 x16 slots + Up to 14 E1.S NVMe Drives

More details here

## Key Applications

AI/Deep Learning Training, Industrial Automation, Healthcare, Conversational AI, Business Intelligence & Analytics, Drug Discovery, Climate and Weather Modeling, Finance & Economics, High Performance Computing (HPC), Edge AI,

## Key Features

- Dual Intel® Xeon® 6900-Series Processors with P-cores up to 500W;
- 24 DIMMs supporting up to 6TB 6400MT/s DDR5 RDIMM or 6TB 8800MT/s DDR5 MRDIMM;
- Up to 10 PCIe 5.0 x16 FHFL or 20 PCIe 5.0 x8 FHFL slots;
- 6/8/14 hot-swap E1.S NVMe drive bays or 2/4/6 hot-swap 2.5" NVMe drive bays;
- 3x 3200W or 2700W Redundant (2+1) Titanium Level power supplies;
- Support up to 8 Double Width Full Height Full Length GPU or 19 Single Width GPU;



| | |
|---|---|
| Form Factor | 3U Rackmount<br>Enclosure: 438.4 x 132.1 x 800mm (17.26" x 5.2" x 31.5")<br>Package: 740 x 340 x 1190mm (29" x 13" x 47") |
| Processor | Dual Socket BR (LGA-7529)<br>Intel® Xeon® 6900 series processors with P-cores<br>128C/256T; 504MB Cache per CPU |
| GPU | Max GPU Count: Up to 8 double-width or 16 single-width GPUs<br>Supported GPU:<br>NVIDIA PCIe: H100, A10, H200 NVL (141GB), L40S, NVIDIA RTX PRO™ 4000 Blackwell, NVIDIA RTX PRO™ 4500 Blackwell Server Edition, NVIDIA RTX PRO™ 5000 Blackwell, NVIDIA RTX PRO™ 6000 Blackwell Max-Q Workstation Edition, NVIDIA RTX PRO™ 6000 Blackwell Server Edition, RTX 5000 Ada<br>Intel: Arc™ Pro B60 Graphics (DW), Arc™ Pro B70 Graphics<br>CPU-GPU Interconnect: PCIe 5.0 x16 CPU-to-GPU Interconnect<br>GPU-GPU Interconnect: PCIe, NVIDIA® NVLink™ |
| System Memory | Slot Count: 24 DIMM slots/1 Channels<br>Max Memory (1DPC): 6TB 6400MT/s ECC DDR5 RDIMM<br>Max Memory (1DPC): 6TB 8800MT/s ECC DDR5 MRDIMM |
| Drive Bays Configuration | Option A: Total 6 bays<br>• 6 front hot-swap E1.S PCIe 5.0 x4 NVMe* drive bays<br>Option B: Total 14 bays<br>• 14 front hot-swap E1.S PCIe 5.0 x4 NVMe* drive bays<br>Option C: Total 2 bays<br>• 2 front hot-swap 2.5" PCIe 5.0 x4 NVMe* drive bays<br>Option D: Total 4 bays<br>• 4 front hot-swap 2.5" PCIe 5.0 x4 NVMe* drive bays<br>Option E: Total 6 bays<br>• 6 front hot-swap 2.5" PCIe 5.0 x4 NVMe* drive bays<br>(*NVMe support may require additional storage controller and/or cables, please see the optional parts list for details)<br>M.2: 2 M.2 PCIe 5.0 x2 NVMe slots (M-key) |
| Expansion Slots | PCI-Express (PCIe) Configuration: Default<br>• 8 PCIe 5.0 x16 (in x16) FHFL double-width slots<br>Option A*<br>• 8 PCIe 5.0 x16 (in x16) FHFL double-width slots |

- 2 PCIe 5.0 x16 (in x16) FHFL slots

Option B*

- 20 PCIe 5.0 x8 (in x16) FHFL slots

CXL Support: Up to 17 CXL 2.0 x16/x8 devices
M.2: 2 M.2 PCIe 5.0 x2 NVMe slots (M-key 22110(default)/2280)

| | |
|---|---|
| Input / Output | LAN: 1 RJ45 1 GbE Dedicated BMC LAN port<br>USB: 2 USB 3.2 Gen1 Type-A ports<br>Video: 1 VGA port<br>TPM: 1 TPM header |

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*(Front View – System)*



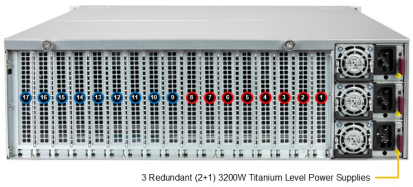

| | Slot Description | |
|---|---|---|
| | Option 1[1] | Option 2[1] |
| 18 | PCIe 5.0 x16 FHFL | PCIe 5.0 x8 FHFL |
| 19 | --- | PCIe 5.0 x8 FHFL |
| 20 | PCIe 5.0 x16 FHFL | PCIe 5.0 x8 FHFL |
| 21 | ---[2] | PCIe 5.0 x8 FHFL[2] |

CPU1 CPU2

| Drive Bay | Description |
|---|---|
| 0 – 5 | 6 Hot-swap E1.S NVMe Drive Bays[1] |

[1] Requires additional parts from the optional parts list
[2] Optional location for I/O board

*(Rear View – System)*




| | Slot Description | |
|---|---|---|
| | Option 1 | Option 2 |
| 2 4 6 8 14 12 16 | PCIe 5.0 x16 FHFL | PCIe 5.0 x8 FHFL |
| 1 3 5 7 9 11 13 15 | --- | PCIe 5.0 x8 FHFL |
| 17 | --- | PCIe 5.0 x8 FHFL[1,2] |

CPU1 CPU2

[1] Optional location for I/O board
[2] When Slot 17 is configured as PCIe 5.0 x8, I/O board can only be placed in Slot 21

| | |
|---|---|
| System Cooling | Fans: Up to 5 Front 8cm Fan(s)<br>Up to 6 Internal 6cm Fan(s)<br>Air Shroud: 1 Air Shroud |
| Power Supply | 3x 3200W Redundant (2 + 1) Titanium Level (96%) Hot-plug power supplies |
| System BIOS | BIOS Type: AMI 64MB SPI Flash EEPROM |
| Management | SuperCloud Composer® (SCC); Supermicro Server Manager (SSM); Super Diagnostics Offline (SDO); Supermicro Thin-Agent Service (TAS); SuperServer Automation Assistant (SAA) New! |
| PC Health Monitoring | CPU: Monitors for CPU Cores, Chipset Voltages, Memory<br>Fan: Fans with tachometer monitoring<br>Pulse Width Modulated (PWM) fan connectors<br>Status monitor for speed control<br>Temperature: Monitoring for CPU and chassis environment<br>Thermal Control for fan connectors |
| Dimensions and Weight | Weight: Gross Weight: 135 lbs (61.24 kg)<br>Net Weight: 70 lbs (32 kg)<br>Available Color: Silver |
| Operating Environment | Operating Temperature: 10°C to 35°C (50°F to 95°F)<br>Non-operating Temperature: -40°C to 60°C (-40°F to 140°F)<br>Operating Relative Humidity: 8% to 90% (non-condensing)<br>Non-operating Relative Humidity: 5% to 95% (non-condensing) |
| Motherboard | **Super X14DBG-XAP** |
| Chassis | **CSE-MX301TS-R0NDFP** |

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