

# 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



## Key Applications

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



<b>Form Factor</b>	<p>3U Rackmount</p> <p>Enclosure: 438.4 x 132.1 x 800mm (17.26" x 5.2" x 31.5")</p> <p>Package: 740 x 340 x 1190mm (29" x 13" x 47")</p>
<b>Processor</b>	<p>Dual Socket BR (LGA-7529)</p> <p>Intel® Xeon® 6900 series processors with P-cores</p> <p>128C/256T; 504MB Cache per CPU</p>
<b>GPU</b>	<p>Max GPU Count: Up to 8 double-width or 19 single-width GPUs</p> <p>Supported GPU:</p> <p>NVIDIA PCIe: H100, A10, H200 NVL (141GB), L40S, NVIDIA RTX PRO™ 4000 Blackwell, NVIDIA RTX PRO™ 5000 Blackwell, NVIDIA RTX PRO™ 6000 Blackwell Max-Q Workstation Edition, NVIDIA RTX PRO™ 6000 Blackwell Server Edition, RTX 5000 Ada</p> <p>CPU-GPU Interconnect: PCIe 5.0 x16 CPU-to-GPU Interconnect</p> <p>GPU-GPU Interconnect: PCIe, NVIDIA® NVLink™</p>
<b>System Memory</b>	<p>Slot Count: 24 DIMM slots/1 Channels</p> <p>Max Memory (1DPC): 6TB 6400MT/s ECC DDR5 RDIMM</p> <p>Max Memory (1DPC): 6TB 8800MT/s ECC DDR5 MRDIMM</p>
<b>Drive Bays Configuration</b>	<p>Option A: Total 6 bays</p> <ul style="list-style-type: none"> <li>• 6 front hot-swap E1.S PCIe 5.0 x4 NVMe* drive bays</li> </ul> <p>Option B: Total 14 bays</p> <ul style="list-style-type: none"> <li>• 14 front hot-swap E1.S PCIe 5.0 x4 NVMe* drive bays</li> </ul> <p>Option C: Total 2 bays</p> <ul style="list-style-type: none"> <li>• 2 front hot-swap 2.5" PCIe 5.0 x4 NVMe* drive bays</li> </ul> <p>Option D: Total 4 bays</p> <ul style="list-style-type: none"> <li>• 4 front hot-swap 2.5" PCIe 5.0 x4 NVMe* drive bays</li> </ul> <p>Option E: Total 6 bays</p> <ul style="list-style-type: none"> <li>• 6 front hot-swap 2.5" PCIe 5.0 x4 NVMe* drive bays</li> </ul> <p>(*NVMe support may require additional storage controller and/or cables, please see the optional parts list for details)</p> <p>M.2: 2 M.2 PCIe 5.0 x2 NVMe slots (M-key)</p>
<b>Expansion Slots</b>	<p>PCI-Express (PCIe) Configuration: Default</p> <ul style="list-style-type: none"> <li>• 8 PCIe 5.0 x16 (in x16) FHFL double-width slots</li> </ul> <p>Option A*</p> <ul style="list-style-type: none"> <li>• 8 PCIe 5.0 x16 (in x16) FHFL double-width slots</li> <li>• 2 PCIe 5.0 x16 (in x16) FHFL slots</li> </ul> <p>Option B*</p> <ul style="list-style-type: none"> <li>• 20 PCIe 5.0 x8 (in x16) FHFL slots</li> </ul> <p>CXL Support: Up to 17 CXL 2.0 x16/x8 devices</p> <p>M.2: 2 M.2 PCIe 5.0 x2 NVMe slots (M-key 22110(default)/2280)</p>

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**Input / Output**

LAN: 1 RJ45 1 GbE Dedicated BMC LAN port

USB: 2 USB 3.2 Gen1 Type-A ports

Video: 1 VGA port

TPM: 1 TPM header

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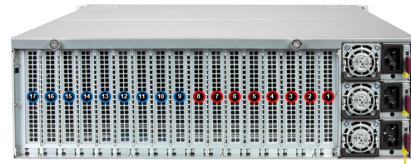
(Front View – System)



Slot Description		Drive Bay	Description
Option 1	Option 2	4 – 5	6 Hot-swap E1.5 NVMe Drive Bays
PCIe 5.0 x16 FHFL	PCIe 5.0 x8 FHFL		
...	PCIe 5.0 x8 FHFL		
PCIe 5.0 x16 FHFL	PCIe 5.0 x8 FHFL		
...	PCIe 5.0 x8 FHFL		

\*Requires additional parts from the optional parts list  
 † Optional location for I/O board

(Rear View – System)



Slot Description	
Option 1	Option 2
PCIe 5.0 x16 FHFL	PCIe 5.0 x8 FHFL
...	PCIe 5.0 x8 FHFL
...	PCIe 5.0 x8 FHFL <sup>1,2</sup>

<sup>1</sup> Optional location for I/O board  
<sup>2</sup> 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) Up to 6 Internal 6cm Fan(s) 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®; 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 FAN: Fans with tachometer monitoring Pulse Width Modulated (PWM) fan connectors Status monitor for speed control Temperature: Monitoring for CPU and chassis environment Thermal Control for fan connectors
Dimensions and Weight	Weight: Gross Weight: 135 lbs (61.24 kg) Net Weight: 70 lbs (32 kg) Available Color: Silver
Operating Environment	Operating Temperature: 10°C to 35°C (50°F to 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	<a href="#">Super X14DBG-XAP</a>
Chassis	<b>CSE-MX301TS-R0NDFP</b>