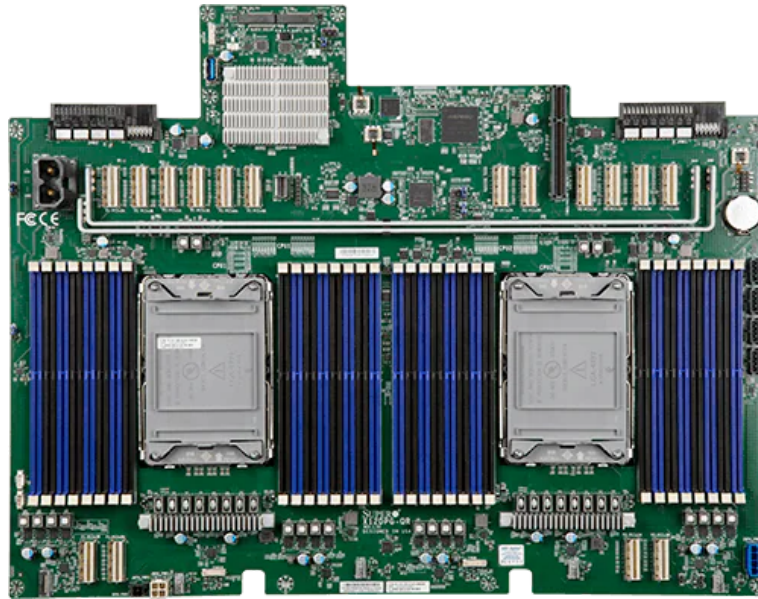


## X12DPG-QR (For SuperServer Only)

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### GPU Serverboard

#### Key Features

1. 3rd Gen Intel® Xeon® Scalable processors  
Dual Socket LGA-4189 (Socket P+) supported, CPU TDP supports Up to 270W TDP, 3 UPI up to 11.2 GT/s

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2. Intel® C621A

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3. Up to 8TB 3DS ECC RDIMM, DDR4-3200MHz; Up to 8TB 3DS ECC LRDIMM, DDR4-3200MHz  
Up to 8GB Unbuffered ECC Intel® Optane™ Persistent Memory 200 Series, DDR4-3200MHz, in 32 DIMM slots

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4. 8 PCI-E 4.0 x8 SlimSAS ports supporting 4 Nvidia Redstone GPUs  
8 PCI-E 4.0 x8 SlimSAS ports supporting 4 AOC  
**M.2 Interface:** 2 Hybrid PCI-E 4.0 x4 / SATA3  
**M.2 Form Factor:** 2280/22110

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5. Flexible networking options

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# Specifications

## Expansion Slots

<b>PCI-E</b>	<ul style="list-style-type: none"> <li>8 PCI-E 4.0 x8 SlimSAS</li> </ul>
<b>M.2</b>	<ul style="list-style-type: none"> <li>M.2 Interface: 2 PCI-E 3.0 x4</li> <li>Form Factor: 2280/22110</li> <li>Key: M-Key</li> </ul>

## System BIOS

<b>BIOS Type</b>	<ul style="list-style-type: none"> <li>AMI UEFI</li> </ul>
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## Management

<b>Software</b>	<ul style="list-style-type: none"> <li>SuperDoctor® 5, NMI, <a href="#">SUM</a>, KVM with dedicated LAN, <a href="#">SPM</a>, Intel® Node Manager, <a href="#">SSM</a>, <a href="#">IPMI2.0</a>, Watchdog, IPMI (Intelligent Platform Management Interface) v2.0 with KVM support</li> </ul>
<b>System Management Software</b>	<ul style="list-style-type: none"> <li>IPMI (Intelligent Platform Management Interface) v1.5 / 2.0 with KVM support</li> </ul>
<b>Power Configurations</b>	<ul style="list-style-type: none"> <li>ACPI / ACPM Power Management</li> </ul>

## PC Health Monitoring

<b>Voltage</b>	<ul style="list-style-type: none"> <li>System temperature, PCH temperature, Memory temperature, CPU temperature, Chipset Voltage, 3.3V standby, 1.2V (VDIMM), 1.05 (PCH), +5V standby, +5V, +3.3V, +12V, VRM temperature, LAN temperature, CPU thermal trip support, +1.8V PCH</li> </ul>
<b>LED</b>	<ul style="list-style-type: none"> <li>UID/Remote UID</li> <li>Power LED</li> <li>BMC/IPMI Heartbeat LED</li> </ul>
<b>Temperature</b>	<ul style="list-style-type: none"> <li>Monitoring for CPU and chassis environment</li> <li>CPU thermal trip support</li> </ul>
<b>FAN</b>	<ul style="list-style-type: none"> <li>4x 4-pin fan headers (up to 4 fans)</li> <li>Fan speed control</li> <li>6 fans with tachometer status monitoring</li> </ul>
<b>Other Features</b>	<ul style="list-style-type: none"> <li>UID</li> <li>CPU thermal trip support for processor protection</li> <li>Chassis intrusion header</li> <li>Chassis intrusion detection</li> <li>ACPI power management</li> </ul>

## Operating Environment

<b>Operating Temperature Range</b>	<ul style="list-style-type: none"> <li>10°C - 35°C (50°F - 95°F)</li> </ul>
<b>Non-Operating Temperature Range</b>	<ul style="list-style-type: none"> <li>-40°C - 70°C (-40°F - 158°F)</li> </ul>

### Product SKUs

<b>MBD-X12DPG-QR</b>	<ul style="list-style-type: none"> <li>▪ X12DPG-QR</li> </ul>
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### Physical Stats

<b>Form Factor</b>	<ul style="list-style-type: none"> <li>▪ Proprietary</li> </ul>
<b>Dimension</b>	<ul style="list-style-type: none"> <li>▪ 17.3" x 13.7" (43.94cm x 34.8cm)</li> </ul>

### Processor

<b>CPU</b>	<ul style="list-style-type: none"> <li>▪ 3rd Gen Intel® Xeon® Scalable processors</li> <li>▪ Dual Socket LGA-4189 (Socket P+) supported, CPU TDP supports Up to 270W TDP, 3 UPI up to 11.2 GT/s</li> </ul>
<b>Core</b>	<ul style="list-style-type: none"> <li>▪ Up to 40 cores</li> </ul>

### System Memory

<b>Memory Capacity</b>	<ul style="list-style-type: none"> <li>▪ 32 DIMM slots</li> <li>▪ Up to 8GB Intel® Optane™ Persistent Memory 200 Series, DDR4-3200MHz</li> <li>▪ Up to 4TB 3DS ECC LRDIMM, DDR4-3200MHz; Up to 4TB 3DS ECC RDIMM, DDR4-3200MHz</li> </ul>
<b>Memory Type</b>	<ul style="list-style-type: none"> <li>▪ 3200/2933/2666MHz ECC DDR4 LRDIMM (3DS), RDIMM (3DS)</li> </ul>
<b>DIMM Sizes</b>	<ul style="list-style-type: none"> <li>▪ 16GB, 32GB, 64GB, 128GB, 256GB</li> <li>▪ LRDIMM: 16GB, 32GB, 64GB, 128GB, 256GB</li> <li>▪ RDIMM: 16GB, 32GB, 64GB, 128GB, 256GB</li> </ul>
<b>Memory Voltage</b>	<ul style="list-style-type: none"> <li>▪ 1.2V</li> </ul>
<b>Error Detection</b>	<ul style="list-style-type: none"> <li>▪ Detects double-bit errors (using ECC memory)</li> </ul>

### On-Board Devices

<b>Chipset</b>	<ul style="list-style-type: none"> <li>▪ Intel® C621A</li> </ul>
<b>SATA</b>	<ul style="list-style-type: none"> <li>▪ Intel® C621A controller for 4 SATA3 (6 Gbps) ports; RAID 0,1,5,10</li> </ul>
<b>IPMI</b>	<ul style="list-style-type: none"> <li>▪ ASPEED AST2600 BMC</li> </ul>
<b>Network Controllers</b>	<ul style="list-style-type: none"> <li>▪ N/A</li> </ul>

### Input / Output

<b>USB</b>	<ul style="list-style-type: none"> <li>▪ 1 USB 3.2 Gen2 port(s) (1 rear Through riser card)</li> </ul>
<b>Video Output</b>	<ul style="list-style-type: none"> <li>▪ 1 VGA port(s) Through riser card</li> </ul>
<b>Serial Port</b>	<ul style="list-style-type: none"> <li>▪ 1 COM Port(s) (1 rear Through riser card)</li> </ul>
<b>TPM</b>	<ul style="list-style-type: none"> <li>▪ 1 TPM Header</li> </ul>

<b>Operating Relative Humidity Range</b>	<ul style="list-style-type: none"> <li>▪ 8% - 90% (non-condensing)</li> </ul>
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<b>Non Operating Relative Humidity Range</b>	<ul style="list-style-type: none"> <li>▪ 5% - 95% (non-condensing)</li> </ul>
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## Parts List

Parts List (Bulk Package)			
Name	Part Number	Qty	Description
Motherboard	MBD-X12DPG-QR	1	X12DPG-QR Motherboard

### Server (Optimized for X12DPG-QR)

Server Name
<u>SYS-220GQ-TNAR+</u>

