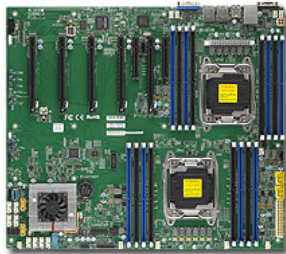




## X10DRG-Q

Products > Motherboards > Xeon® Boards > [X10DRG-Q]



### Key Features

- Supports 4-way Geforce SLI

- Dual socket R3 (LGA 2011) supports Intel® Xeon® processor E5-2600 v3 family; QPI up to 9.6GT/s
- Intel® C612 chipset
- Up to 1TB ECC DDR4 2133MHz; 16x DIMM slots
- 4x PCI-E 3.0 x16, 2x PCI-E 3.0 x8 (1 in x16), 1x PCI-E 2.0 x4 (in x8)
- Intel® i350 Dual port GbE LAN
- 10x SATA3 (6Gbps); RAID 0, 1, 5, 10
- Integrated IPMI 2.0 and KVM with Dedicated LAN
- 5x USB 3.0 ports, 4x USB 2.0 ports
- 7.1 HD Audio with optical S/PDIF

- ### Links & Resources
- [Tested Memory List](#)
  - [Tested HDD / SSD List](#)
  - [Motherboard Manual](#)
  - [Update Your BIOS](#)
  - [IPMI Firmware](#)
  - [Download the Latest Drivers and Utilities](#)
  - [Download Driver CD](#)
  - [Heat Sink Compatibility](#)
  - [OS Compatibility](#)
  - [DP Motherboard Selection Assistant](#)



### Specifications

#### Product SKUs

<b>MBD-X10DRG-Q - B</b>	<ul style="list-style-type: none"> <li>X10DRG-Q (Bulk Pack)</li> </ul>
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#### Physical Stats

<b>Form Factor</b>	<ul style="list-style-type: none"> <li>Proprietary</li> </ul>
<b>Dimensions</b>	<ul style="list-style-type: none"> <li>15.2" x 13.2" (38,6cm x 33,5cm)</li> </ul>

#### Processor/Cache

<b>CPU</b>	<ul style="list-style-type: none"> <li>Intel® Xeon® processor E5-2600 v3 family (up to 160W TDP **)</li> <li>Dual Socket R3 (LGA 2011)</li> </ul>
<b>Cores / Cache</b>	<ul style="list-style-type: none"> <li>Up to 18 Cores / Up to 45MB Cache</li> </ul>
<b>System Bus</b>	<ul style="list-style-type: none"> <li>QPI up to 9.6 GT/s</li> </ul>
<b>Note</b>	<p>** Motherboard supports this maximum TDP. Please verify your system can thermally support.</p>

#### System Memory

<b>Memory Capacity</b>	<ul style="list-style-type: none"> <li>16x 288-pin DDR4 DIMM slots</li> <li>Up to 1TB ECC LRDIMM, 512GB ECC RDIMM</li> </ul>
<b>Memory Type</b>	<ul style="list-style-type: none"> <li>2133/1866/1600MHz ECC DDR4 SDRAM 72-bit</li> </ul>
<b>DIMM Sizes</b>	<ul style="list-style-type: none"> <li>RDIMM: 32GB, 16GB, 8GB, 4GB</li> <li>LRDIMM: 64GB, 32GB</li> </ul>
<b>Memory Voltage</b>	<ul style="list-style-type: none"> <li>1.2 V</li> </ul>
<b>Error Detection</b>	<ul style="list-style-type: none"> <li>Corrects single-bit errors</li> </ul>

#### On-Board Devices

<b>Chipset</b>	<ul style="list-style-type: none"> <li>Intel® C612 chipset</li> </ul>
<b>AHCI SATA</b>	<ul style="list-style-type: none"> <li>SATA3 (6Gbps); RAID 0, 1, 5, 10</li> </ul>
<b>SCU SATA</b>	<ul style="list-style-type: none"> <li>SATA3 (6Gbps); RAID 0, 1, 5, 10</li> </ul>
<b>IPMI</b>	<ul style="list-style-type: none"> <li>Support for Intelligent Platform Management Interface v.2.0</li> <li>IPMI 2.0 with virtual media over LAN and KVM-over-LAN support</li> <li>ASPEED AST2400 BMC</li> </ul>
<b>Network Controllers</b>	<ul style="list-style-type: none"> <li>Intel® i350 Dual Port Gigabit Ethernet</li> <li>Virtual Machine Device Queues reduce I/O overhead</li> <li>Supports 10BASE-T, 100BASE-TX, and 1000BASE-T, RJ45 output</li> <li>1x Realtek RTL8211E PHY (dedicated IPMI)</li> </ul>
<b>Video</b>	<ul style="list-style-type: none"> <li>ASPEED AST2400 BMC</li> </ul>

#### Input / Output

<b>SATA</b>	<ul style="list-style-type: none"> <li>10x SATA3 (6Gbps) ports</li> </ul>
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#### Chassis (Optimized for X10DRG-Q)

<b>4U / Tower Chassis:</b>	<ul style="list-style-type: none"> <li>SC747TQ-R1620B</li> </ul>
<b>Important Chassis Notes</b>	<ul style="list-style-type: none"> <li>To support the new generation Intel® Xeon® processor-based motherboards, <b>Revision M</b> chassis is recommended. Please talk to your sales representative for details.</li> </ul>

#### SuperServer(s) with X10DRG-Q

<b>Model(s)</b>	<ul style="list-style-type: none"> <li>SYS-7048GR-TR</li> </ul>
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#### Expansion Slots

	<ul style="list-style-type: none"> <li>4x PCI-E 3.0 x16 (double-width) slots</li> <li>2x PCI-E 3.0 x8 (1 in x16) slots</li> <li>1x PCI-E 2.0 x4 (in x8) slot</li> </ul>
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<b>PCI-Express</b>	<p>(Both CPUs need to be installed for full access to PCI-E slots and onboard controllers. See manual block diagram for details.)</p>
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#### System BIOS

<b>BIOS Type</b>	<ul style="list-style-type: none"> <li>128Mb SPI Flash EEPROM with AMI BIOS</li> </ul>
<b>BIOS Features</b>	<ul style="list-style-type: none"> <li>Plug and Play (PnP)</li> <li>PCI 2.3</li> <li>ACPI 1.0 / 2.0 / 3.0 / 4.0</li> <li>BIOS rescue hot keys</li> <li>USB Keyboard support</li> <li>SMBIOS 2.7.1</li> <li>UEFI 2.3.1</li> </ul>

#### Management

<b>Software</b>	<ul style="list-style-type: none"> <li>Intel® Node Manager</li> <li>SuperDoctor® 5</li> <li>IPMI 2.0</li> <li>NMI</li> <li>SPM</li> <li>SUM</li> <li>Watch Dog</li> </ul>
<b>Power Configurations</b>	<ul style="list-style-type: none"> <li>ACPI / APM Power Management</li> <li>CPU Fan auto-off in sleep mode</li> <li>Power-on mode for AC power recovery</li> </ul>

#### PC Health Monitoring

<b>Voltage</b>	<ul style="list-style-type: none"> <li>Monitors for CPU Cores, +3.3V, +5V, +12V, +5V Standby, VBAT, Memory Voltages.</li> <li>6 Phase-switching voltage regulator</li> </ul>
<b>FAN</b>	<ul style="list-style-type: none"> <li>10x 4-pin fan headers (up to 10 fans)</li> <li>10x fans with tachometer monitoring</li> <li>Status monitor for speed control</li> <li>Status monitor for on/off control</li> <li>Low noise fan speed control</li> <li>Pulse Width Modulated (PWM) fan connectors</li> <li>Monitoring for CPU and chassis</li> </ul>

<b>LAN</b>	<ul style="list-style-type: none"> <li>2x RJ45 Gigabit Ethernet LAN ports</li> <li>1x RJ45 Dedicated IPMI LAN port</li> </ul>
<b>USB</b>	<ul style="list-style-type: none"> <li>5x USB 3.0 ports (2 rear, 2 via header, 1 Type A)</li> <li>4x USB 2.0 ports (2 rear, 2 via headers)</li> </ul>
<b>Audio</b>	<ul style="list-style-type: none"> <li>7.1 HD Audio with optical S/PDIF</li> </ul>
<b>Video</b>	<ul style="list-style-type: none"> <li>1x VGA port</li> </ul>
<b>Serial Port / Header</b>	<ul style="list-style-type: none"> <li>2x COM ports (1 rear, 1 Header)</li> </ul>
<b>DOM</b>	<ul style="list-style-type: none"> <li>2x SuperDOM (Disk on Module) ports</li> </ul>
<b>TPM</b>	<ul style="list-style-type: none"> <li>1x TPM 1.2 20-pin Header</li> </ul>
<b>Thunderbolt</b>	<ul style="list-style-type: none"> <li>Thunderbolt AOC Header</li> </ul>

<b>Temperature</b>	<ul style="list-style-type: none"> <li>environment</li> <li>CPU thermal trip support</li> <li>Thermal Control for 8x Fan Connectors</li> <li>Thermal Monitor 2 (TM2) support</li> <li>PECI</li> </ul>
<b>LED</b>	<ul style="list-style-type: none"> <li>CPU / System Overheat LED</li> <li>Suspend static indicator LED</li> <li>UID/Remote UID</li> </ul>
<b>Other Features</b>	<ul style="list-style-type: none"> <li>Chassis intrusion detection</li> <li>Chassis intrusion header</li> <li>SDDC Support</li> <li>RoHS</li> <li>Dual Cooling Zones</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>
<b>Operating Relative Humidity Range</b>	<ul style="list-style-type: none"> <li>8% - 90% (non-condensing)</li> </ul>
<b>Non-Operating Relative Humidity Range</b>	<ul style="list-style-type: none"> <li>5% - 95% (non-condensing)</li> </ul>

Note: For optimized or compatible chassis, additional parts may be required, please check with Supermicro sales rep

#### Parts List

##### Parts List (bulk pack)

	Part Number	Qty	Description
<b>X10DRG-Q</b>	MBD-X10DRG-Q	1	X10DRG-Q Motherboard
<b>I/O Cables</b>	CBL-0044L	2	57.5CM SATA FLAT S-S PBF
<b>I/O Shield</b>	MCP-260-00042-0N	1	STD I/O shield for X9 socket R server MB with Gasket

##### Optional Parts List

	Part Number	Qty	Description
<b>Heat Sink (optional, not included)</b>	-	-	CPU Heat Sink <a href="#">reference</a>
<b>TPM security module (optional, not included)</b>	<a href="#">AOM-TPM-9655V</a> <a href="#">AOM-TPM-9655H</a>	-	TPM module with Infineon 9655, RoHS/REACH,PBF; Vertical or Horizontal depends on the server
<b>SuperDOM</b>	-	-	Supermicro SATA DOM Solutions <a href="#">[Details]</a>

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