



## 7 PCI-E 3.0 Slots

### Key Features

1. 2nd Gen Intel® Xeon® Scalable Processors and Intel® Xeon® Scalable Processors,  
Dual Socket LGA-3647 (Socket P) supported, CPU TDP support Up to 205W TDP, 3  
UPI up to 10.4 GT/s
2. Intel® C622
3. Up to 4TB 3DS ECC RDIMM, DDR4-2933MHz; Up to 4TB 3DS ECC LRDIMM, DDR4-  
2933MHz  
Or 2TB DCPMM, DDR4-2666MHz, in 16 DIMM slots;  
Up to 2TB Intel® Optane™ DC Persistent Memory in memory mode (Cascade Lake  
only);
4. 3 PCI-E 3.0 x16,  
4 PCI-E 3.0 x8  
**M.2 Interface:** 2 PCI-E 3.0 x4  
**M.2 Form Factor:** 2242/2260/2280/22110  
**M.2 Key:** M-Key (RAID 0,1 support)
5. 1 VGA port
6. Intel® C622 controller for 10 SATA3 (6 Gbps) ports; RAID 0,1,5,10
7. Dual LAN with 10GBase-T with Intel® X722 + X557

## Links & Resources

[Tested Memory List](#)

[Tested HDD / SSD List](#)

[Tested M.2 List](#)

[Tested AOC List](#)

[Motherboard Manual](#)

[Quick Reference Guide](#)

[Update Your BIOS](#)

[BMC/IPMI Firmware](#)

[Download the Latest Drivers and Utilities](#)

[Download Drivers CD](#)

[OS Compatibility](#)

[Optimization](#)



# Specifications

## Product SKUs

- MBD-X11DPH-T
- X11DPH-T

## Physical Stats

- **Form Factor** E-ATX
- **Dimensions** 12" x 13" (30.48cm x 33.02cm)

## Processor/Cache

- **CPU** 2nd Gen Intel® Xeon® Scalable Processors and Intel® Xeon® Scalable Processors,
- Dual Socket LGA-3647 (Socket P) supported, CPU TDP support Up to 205W TDP, 3 UPI up to 10.4 GT/s

- **Note** BIOS version 3.0a or above is required to support 2nd Generation Intel Xeon Scalable Processors-SP
- BIOS version 3.2 or above is required to support 2nd Gen Intel® Xeon® Scalable processors (codenamed Cascade Lake-R)

## System Memory

- **Memory Capacity** Up to 4TB 3DS ECC RDIMM, DDR4-2933MHz; Up to 4TB 3DS ECC LRDIMM, DDR4-2933MHz, in 16 DIMM slots;
- Up to 2TB Intel® Optane™ DC Persistent Memory in memory mode (Cascade Lake only);
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- **Memory Type** 2933/2666/2400/2133MHz ECC DDR4 RDIMM, LRDIMM

- **DIMM Sizes** RDIMM: 64GB
- LRDIMM: 64GB
- 3DS LRDIMM: 128GB, 256GB

- **Memory Voltage** 1.2V

- **Error Detection** Corrects single-bit errors
- Detects double-bit errors (using ECC memory)

## On-Board Devices

- **Chipset** Intel® C622
- **SATA** Intel® C622 controller for 10 SATA3 (6 Gbps) ports; RAID 0,1,5,10
- **IPMI** ASPEED AST2500
- **Network Controllers** Dual LAN with 10GBase-T with Intel® X722 + X557

## Input / Output

- **SATA** 10 SATA3 (6Gbps) ports
- **LAN** 2 RJ45 10GBase-T ports
- **USB** 7 USB 3.0 ports (4 rear + 2 headers + 1 Type A)
- **Video Output** 1 VGA port
- **Serial Port / Header** 1 COM Port (1 rear)
- **TPM** 1 TPM Header

## Expansion Slots

- **PCI-E** 3 PCI-E 3.0 x16,
- 4 PCI-E 3.0 x8
- **M.2** M.2 Interface: 2 PCI-E 3.0 x4
- Form Factor: 2242/2260/2280/22110
- Key: M-Key (RAID 0,1 support)

## System BIOS

- **BIOS Type** AMI UEFI

## Management

- **Software** Intel® Node Manager, IPMI2.0, KVM with dedicated LAN, SPM, SSM, SUM, SuperDoctor® 5, Watchdog

## PC Health Monitoring

- **Voltage** +1.8V, +12V, +3.3V, +5V, +5V standby, 1.05 (PCH), Chipset Voltage, Memory Voltages, Monitors CPU voltages
- **FAN** 8x 4-pin fan headers (up to 8 fans), 8x fans with tachometer monitoring, PWM fan speed control
- **Temperature** CPU thermal trip support, Monitoring for CPU and chassis environment, Thermal Control for 8 Fan Connectors
- **LED** BMC/IPMI Heartbeat LED, Power LED, UID/Remote UID
- **Other Features** 8-pin 12v DC power connector, ACPI power management, ATX Power connector, Chassis intrusion detection, Chassis intrusion header, CPU thermal trip support for processor protection, NCSI header, RoHS, SDDC, UID, WOL

## Operating Environment

- **Operating Temperature Range** 10°C - 35°C (50°F - 95°F)
- **Non-Operating Temperature Range** -40°C - 70°C (-40°F - 158°F)
- **Operating Relative Humidity Range** 8% - 90% (non-condensing)
- **Non-Operating Relative Humidity Range** 5% - 95% (non-condensing)

# Parts List

Parts List (Bulk Package)			
Name	Part Number	Qty	Description
Motherboard	MBD-X11DPH-T	1	X11DPH-T Motherboard
I/O Shield	MCP-260-00042-0N	1	STD I/O SHIELD
I/O Cables	CBL-0044L	2	57.5 cm SATA FLAT S-S PBF

Parts List (Retail Package)			
Name	Part Number	Qty	Description
Motherboard	MBD-X11DPH-T	1	X11DPH-T Motherboard
I/O Shield	MCP-260-00042-0N	1	STD I/O SHIELD
I/O Cables	CBL-0044L	2	57.5 cm SATA FLAT S-S PBF

Optional Parts List			
Name	Part Number	Qty	Description
TPM security module (optional, not included)	AOM-TPM-9670V	1	SPI capable TPM 2.0 with Infineon 9670 controller with vertical form factor
TPM security module (optional, not included)	AOM-TPM-9670H	1	SPI capable TPM 2.0 with Infineon 9670 controller with horizontal form factor
TPM security module (optional, not included)	AOM-TPM-9671V	1	SPI capable TPM 1.2 with Infineon 9670 controller with vertical form factor
TPM security module (optional, not included)	AOM-TPM-9671H	1	SPI capable TPM 1.2 with Infineon 9670 controller with horizontal form factor

## Chassis (Optimized for X11DPH-T)

Embedded Compact	1U	2U	3U	Mid/Mini-Tower	4U/Tower
		<ul style="list-style-type: none"> <li>● 826BE1C4-R1K23LPB</li> <li>● 829HE1C4-R1K62LPB</li> <li>● 216BE1C4-R1K23LPB</li> <li>LA26E1C4-R609LP</li> <li>2U Heatsink:SNK-P0068PSC (Front)</li> <li>2U Heatsink:SNK-P0068PS (Rear)</li> </ul>	<ul style="list-style-type: none"> <li>● <u>SC836BE1C-R1K23B</u></li> <li>2U Heatsink:SNK-P0068PS</li> </ul>		<ul style="list-style-type: none"> <li>● <u>SC846BE1C-R1K23B</u></li> <li>2U Heatsink:SNK-P0068PS</li> <li>● <u>SC847BE1C4-R1K23LPB</u></li> <li>2U Heatsink:SNK-P0068PSC (Front)</li> <li>2U Heatsink:SNK-P0068PS (Rear)</li> </ul>

● = Most optimized Chassis for SuperServer Configuration

Blue color = Compatible

Green color = Global SKU & Compatible

Red dot & green color = Optimized + Global SKU

## Server (Optimized for X11DPH-T)

Server Name
<u>SSG-2029P-E1CR24H</u>
<u>SSG-2029P-E1CR24L</u>
<u>SSG-6029P-E1CR12H</u>
<u>SSG-6029P-E1CR12L</u>
<u>SSG-6029P-E1CR12T</u>
<u>SSG-2029P-ACR24H</u>
<u>SSG-2029P-ACR24L</u>
<u>SSG-6029P-E1CR16T</u>
<u>SSG-6039P-E1CR16H</u>
<u>SSG-6039P-E1CR16L</u>
<u>SSG-6049P-E1CR24L</u>
<u>SSG-6049P-E1CR24H</u>
<u>SSG-6049P-E1CR36H</u>
<u>SSG-6049P-E1CR36L</u>