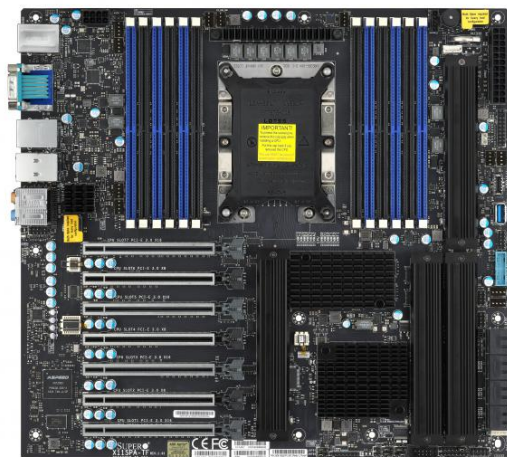




Workstation

Key Features

1. 2nd Gen Intel® Xeon® Scalable Processors and Intel® Xeon® Scalable Processors, Intel® Xeon® W-32xx Processor
Single Socket LGA-3647 (Socket P) supported, CPU TDP support 205W TDP
2. Intel® C621
3. Up to 3TB 3DS ECC RDIMM, DDR4-2933MHz; Up to 2TB 3DS ECC LRDIMM, DDR4-2933MHz
Or 3TB DCPMM, DDR4-2666MHz, in 12 DIMM slots;
Xeon-W 32xx supports up to 2TB 3DS ECC RDIMM/LRDIMM, Xeon-W 32xx supports up to 1TB 3DS RDIMM/LRDIMM. ;
Xeon-W32xx series processors don't support DCPMM.
4. 4 PCI-E 3.0 x16,
3 PCI-E 3.0 x8 (in x16 slot),
PCI-Ex16 Slot#1 shares w ith M.2, Slot#2 shares w ith Slot#3(NA/16,8/8), Slot#4 shares w ith Slot#5(NA/16,8/8), Slot#6 shares w ith Slot#7(NA/16,8/8)
(16/NA/16/NA/16/NA/16 or 16/8/8/8/8/8/8)
M.2 Interface: 4 PCI-E 3.0 x4, RAID 0 & 1
M.2 Form Factor: 2242/2260/2280/22110
M.2 Key: M-Key
M.2 support RAID 0,1(up to RAID 5, 10), VROC key is required for Raid.
5. 1 VGA port,
VGA connector is dedicated for IPMI.
6. Intel® C621 controller for 8 SATA3 (6 Gbps) ports; RAID 0,1,5,10
7. Single LAN w ith Intel® Ethernet Controller I210-AT
Single LAN w ith Aquantia® AQC107 10G Ethernet Controller
Single LAN w ith Realtek RTL8211E PHY (dedicated IPMI)

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 Driver CD](#)

[OS Compatibility](#)

[Optimization](#)

Specifications

Product SKUs

MBD-X11SPA-T	■ X11SPA-T
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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, Intel® Xeon® W-32xx Processor ■ Single Socket LGA-3647 (Socket P) supported, CPU TDP support 205W TDP
Cores / Cache	■ Up to 28 cores
Note	■ 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 3TB 3DS ECC RDIMM, DDR4-2933MHz; Up to 2TB 3DS ECC LRDIMM, DDR4-2933MHz ■ Or 3TB DCPMM, DDR4-2666MHz, in 12 DIMM slots; ■ Xeon-W 32xx supports up to 2TB 3DS ECC RDIMM/LRDIMM, Xeon-W 32xx supports up to 1TB 3DS RDIMM/LRDIMM. ; ■ Xeon-W32xx series processors don't support DCPMM.
Memory Type	■ N/A
DIMM Sizes	■ 1GB, 2GB, 4GB, 8GB, 16GB, 32GB, 64GB, 128GB
Memory Voltage	■ 1.2V

On-Board Devices

Chipset	■ Intel® C621
SATA	■ Intel® C621 controller for 8 SATA3 (6 Gbps) ports; RAID 0,1,5,10
IPMI	■ ASPEED AST2500
Network Controllers	■ Single LAN with Intel® Ethernet Controller I210-AT ■ Single LAN with Aquantia® AQC107 10G Ethernet Controller ■ Single LAN with Realtek RTL8211E PHY (dedicated IPMI)
Graphics	■ Aspeed AST2500 BMC ■ VGA connector is dedicated for IPMI.

Input / Output

LAN	■ 1 1GbE LAN ports ■ 1 RJ45 10GBase-T ports
USB	■ 2 USB 2.0 ports (2 via headers, Type A)) ■ 6 USB 3.1 Gen1 ports (4 Rears Type A, 2 via headers) ■ 4 USB 3.1 Gen2 ports (1 Rear Type A + 1 Rear Type C, 1 Type A + 1 Type C)
Video Output	■ 1 VGA port, ■ VGA connector is dedicated for IPMI.
Serial Port / Header	■ 2 COM Ports (1 rear, 1 header)
TPM	■ 1 TPM Header

Expansion Slots

PCI-E	■ 4 PCI-E 3.0 x16, ■ 3 PCI-E 3.0 x8 (in x16 slot), ■ PCI-Ex16 Slot#1 shares with M.2, Slot#2 shares with Slot#3(NA/16,8/8), Slot#4 shares with Slot#5(NA/16,8/8), Slot#6 shares with Slot#7(NA/16,8/8) ■ (16/NA/16/NA/16/NA/16 or 16/8/8/8/8/8) ■ (16/NA/16/NA/16/NA/16 or 16/8/8/8/8/8)
M.2	■ M.2 Interface: 4 PCI-E 3.0 x4, RAID 0 & 1 ■ Form Factor: 2242/2260/2280/22110 ■ Key: M-Key ■ VROC key is required for Raid.

System BIOS

BIOS Type	■ 256Mb SPI Flash with AMI BIOS
BIOS Features	■ ACPI 3.0 / 4.0 ■ SMBIOS 2.7 ■ PCI FW 3.0 ■ RTC (Real Time Clock) Wakeup

Management

Software	■ IPMI (Intelligent Platform Management Interface) v2.0 with KVM support, SPM, SUM, SuperDoctor® 5, Watchdog
System Mangement Software	■ IPMI (Intelligent Platform Management Interface) v1.5 / 2.0 with KVM support ■ ***
 SUM OOB Bios refresh is not supported ■ SuperDoctor 5
Power Configurations	■ ACPI Pow er Management ■ Main Sw itch Override Mechanism ■ Pow er-on mode for AC pow er recovery ■ CPU thermal trip support for processor protection

PC Health Monitoring

Voltage	■ +1.8V, +12V, +3.3V, +5V, +5V standby, 10 - fan status, 3.3V standby, HT, Memory, VBAT
FAN	■ 10x 4-pin fan headers (up to 10 fans), Dual Cooling Zone, Fan speed control, Overheat LED indication ■ 2 CPU Fan + 1 Water Cooler Radiator pow er connector + 8 System Fans.
Temperature	■ CPU thermal trip support, Monitoring for CPU and chassis environment, PECI
LED	■ CPU / System Overheat LED, Suspend static indicator LED
Other Features	■ Chassis intrusion header, CPU thermal trip support for processor protection, Dual Cooling Zones, Intel Smart Response Technology, RoHS, UID, WOL

Operating Environment

Operating Temperature Range	■ 0°C ~ 50°C (32°F ~ 122°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	■ 10% ~ 95% (non-condensing)

Parts List

Parts List (Bulk Package)			
Name	Part Number	Qty	Description
Motherboard	MBD-X11SPA-T	1	X11SPA-T Motherboard
X11SPA series IO Shield	MCP-260-00142-0N	1	
SATA cable	CBL-0044L	2	
CPU-GPU power connector adapter	CBL-PWEX-0663	1	

Parts List (Retail Package)			
Name	Part Number	Qty	Description
Motherboard	MBD-X11SPA-T	1	X11SPA-T Motherboard
X11SPA series IO Shield	MCP-260-00142-0N	1	
SATA cable	CBL-0044L	6	
CPU-GPU power connector adapter	CBL-PWEX-0663	1	
X11SPA-TF/X11SPA-T Quick Reference Guide	MNL-2173-QRG	1	

Optional Parts List			
Name	Part Number	Qty	Description
4U CPU Heat Sink	SNK-P0071APS4	1	4U Active CPU Heat Sink for SYS-5049A-T.
TPM security module (optional, not included)	AOM-TPM-9671V	1	
TPM security module (optional, not included)	AOM-TPM-9671V-S	1	
TPM security module (optional, not included)	AOM-TPM-9670V	1	
TPM security module (optional, not included)	AOM-TPM-9670V-S	1	

Chassis (Optimized for X11SPA-T)

Embedded Compact	1U	2U	3U	Mid/Mini-Tower	4U/Tower
					SC743AC-1200B-SQ SC743TQ-1200B-SQ SC743AC-668B SC745BAC-R1K28B2 SC745BTQ-R1K28B-SQ SC747BTQ-R1K62B SC842XTQC-R804B SC842XTQ-R606B SC842TQC-668B SC842TQ-865B

= Most optimized Chassis for SuperServer Configuration
Blue color = Compatible
Green color = Global SKU & Compatible
Red dot & green color = Optimized + Global SKU

Server (Optimized for X11SPA-T)

Server Name
<u>SYS-5049A-TR</u>