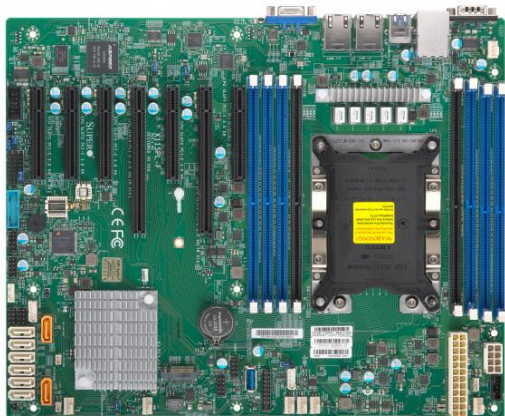




VROC support

Key Features

1. 2nd Gen Intel® Xeon® Scalable Processors and Intel® Xeon® Scalable Processors, , Single Socket LGA-3647 (Socket P) supported, CPU TDP support Up to 165W TDP
2. Up to 2TB 3DS ECC RDIMM, DDR4-2933MHz; Up to 2TB 3DS ECC LRDIMM, DDR4-2933MHz, in 8 DIMM slots;
Up to 1TB Intel Optane DC Persistent Memory in memory mode (Cascade Lake Only)
3. Intel® C621 Chipset
4. Expansion slots:
2 PCI-E 3.0 x8 (in x16),
4 PCI-E 3.0 x8,
1 PCI-E 3.0 x4 (in x8)
5. 2 GbE LAN ports
6. 8 SATA3 (6Gbps) ports
7. I/O: 1 VGA, 2 COM, TPM header
8. 2 SuperDOM with built-in power
9. 5 USB 3.0 (2 rear, 1 Type-A, 2 via header), 8 USB 2.0 (2 rear, 6 via headers)
10. M.2 NGFF connector
M.2 Interface: PCI-E 3.0 x4 and SATA
Form Factor: 2280, 22110
Key: M-Key
Double Height Connector

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-X11SPL-F ■ X11SPL-F

Physical Stats

Form Factor ■ ATX

Dimensions ■ 12" x 9.6" (30.48cm x 24.38cm)

Processor/Cache

CPU ■ 2nd Gen Intel® Xeon® Scalable Processors and Intel® Xeon® Scalable Processors, ■ Single Socket LGA-3647 (Socket P) supported, CPU TDP support Up to 165W TDP

Cores / Cache ■ Up to 28 cores

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 2TB 3DS ECC RDIMM, DDR4-2933MHz; Up to 2TB 3DS ECC LRDIMM, DDR4-2933MHz, in 8 DIMM slots; ■ Up to 1TB Intel Optane DC Persistent Memory in memory mode (Cascade Lake Only)

Memory Type ■ 2933/2666/2400/2133MHz ECC DDR4 RDIMM, LRDIMM

DIMM Sizes ■ RDIMM: 8GB, 16GB, 32GB, 64GB ■ LRDIMM: 32GB, 64GB, 128GB ■ 3DS LRDIMM: 64GB, 128GB, 256GB

Memory Voltage ■ 1.2V

Error Detection ■ Corrects single-bit errors

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 ■ Dual LAN with 1GbE with Intel® I210

Graphics ■ Aspeed AST2500 BMC

Input / Output

SATA ■ 8 SATA3 (6Gbps) port

LAN ■ 2 RJ45 Gigabit Ethernet LAN ports

USB ■ 8 USB 2.0 ports (2 rear + 6 headers) ■ 5 USB 3.0 ports (2 rear + 2 headers + 1 Type A)

Video Output ■ 1 VGA port

Serial Port / Header ■ 2 COM Ports (1 rear, 1 header)

TPM ■ TPM Header

Expansion Slots

PCI-E ■ 2 PCI-E 3.0 x8 (in x16 slot), ■ 4 PCI-E 3.0 x8, ■ 1 PCI-E 3.0 x4 (in x8 slot)

M.2 ■ M.2 Interface: PCI-E 3.0 x4 and SATA ■ Form Factor: 2280, 22110 ■ Key: M-Key ■ Double Height Connector

System BIOS

BIOS Type ■ AMI UEFI

BIOS Features ■ ACPI 6.0 ■ RTC (Real Time Clock) Wakeup ■ SMBIOS 3.0 or later

Management

Software ■ Intel® Node Manager, IPMI2.0, KVM with dedicated LAN, NMI, SPM, SUM, SuperDoctor® 5, Watchdog

Power Configurations ■ ACPI Power Management ■ Power-on mode for AC power recovery

PC Health Monitoring

Voltage ■ +1.8V, +12V, +3.3V, +5V, +5V standby, 3.3V standby, 7-fan status, Chassis intrusion header, HT, Monitors CPU voltages, Supports system management utility, VBAT

FAN ■ 7x 4-pin fan headers (up to 7 fans), Fan speed control, Overheat LED indication, PWM fan speed control, System level control

Temperature ■ CPU thermal trip support, PECI

LED ■ CPU / System Overheat LED, UID/Remote UID, Suspend static indicator LED

Other Features ■ ACPI power management, Control of power-on for recovery from AC power loss, CPU thermal trip support for processor protection, M.2 NGFF connector, 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 ■ 5% - 95% (non-condensing)

Parts List

Parts List (Bulk Package)			
Name	Part Number	Qty	Description
Motherboard	MBD-X11SPL-F	1	X11SPL-F Motherboard
I/O Cables	CBL-0044L	2	57.5 cm SATA FLAT S-S PBF
I/O Shield	MCP-260-00042-0N	1	STD I/O Shield for X11SPL-F with EMI Gasket

Parts List (Retail Package)			
Name	Part Number	Qty	Description
Motherboard	MBD-X11SPL-F	1	X11SPL-F Motherboard
QRG	MNL-1950-QRG	1	Motherboard Quick Reference Guide
I/O Cables	CBL-0044L	6	57.5 cm SATA FLAT S-S PBF
I/O Shield	MCP-260-00042-0N	1	STD I/O Shield for X11SPL-F with EMI Gasket

Optional Parts List			
Name	Part Number	Qty	Description
TPM security module	AOM-TPM-9670H		SPI capable TPM 2.0 with Infineon 9670 controller with horizontal form factor
TPM security module	AOM-TPM-9670V		SPI capable TPM 2.0 with Infineon 9670 controller with vertical form factor
TPM security module	AOM-TPM-9671H		SPI capable TPM 1.2 with Infineon 9670 controller with horizontal form factor
TPM security module	AOM-TPM-9671V		SPI capable TPM 1.2 with Infineon 9670 controller with vertical form factor

Chassis (Optimized for X11SPL-F)

Embedded Compact	1U	2U	3U	Mid / Mini-Tower	4U / Tower
	SC512F-350B1 SC813MFTQC-350CB2 SC813MFTQC-R407CB SC113MFAC2-341CB SC113MFAC2-R606CB SC113MFAC2-605CB SC515-350 SC515-R407 SC514-R407C 1U Heatsink:SNK-P0067PS	SC823TQ-653LPB SC825TQC-R740LPB SC213LT-600LPB SC213A-R740LPB SCLA25TQC-R609LP 2U Heatsink:SNK-P0068APS4	SC833T-653B 2U Heatsink:SNK-P0068APS4		SC842TQC-668B 2U Heatsink:SNK-P0068APS4

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

Server (Optimized for X11SPL-F)

Server Name
SSG-5049P-E1CR45L
SSG-5049P-E1CR45H