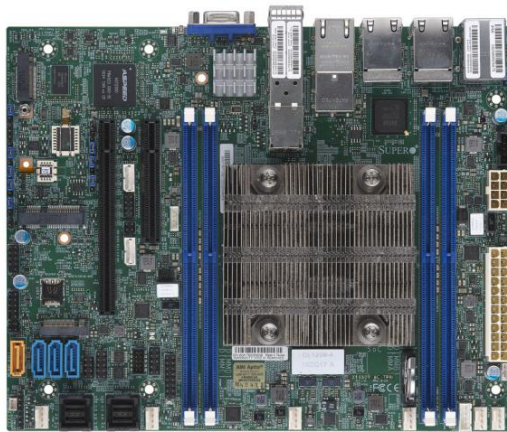




Xeon D SoC
Intel® Quick Assist Technology
Quad 10GbE LAN
Quad 1GbE LAN
IPMI

Key Features

1. [Intel® Xeon® Processor D-2146NT](#), CPU TDP support 80W
2. [System on Chip](#)
3. Up to 256GB Registered ECC RDIMM, DDR4-2133MHz; Up to 512GB LRDIMM LRDIMM, DDR4-2133MHz, in 4 DIMM slots
4. 1 PCI-E 3.0 x8,
1 PCI-E 3.0 x16
M.2 Interface: 1 PCI-E 3.0 x4 and 1 SATA/PCI-E 3.0 x2
M.2 Form Factor: 2242/2280
M.2 Key: M-Key, B-Key
U.2 Interface: 2 PCI-E 3.0 x4,
2 PCI-E 3.0 NVMe x4 Internal Port(s)
5. 1 VGA D-Sub Connector port
6. [SoC controller](#) for 12 SATA3 (6 Gbps) ports; RAID 0,1,5,10
7. Quad LAN with Intel® Ethernet Controller I350-AM4
Dual LAN with 10G SFP+ LAN via SoC
Dual LAN with 10Gbase-T
8. Intel Quick Assist Technology
9. Supports 12V DC power input

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-X11SDV-8C-TP8F	■ X11SDV-8C-TP8F
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Physical Stats

Form Factor	■ Flex ATX
Dimensions	■ 9" x 7.25" (22.86cm x 18.42cm)

Processor/Cache

CPU	■ Intel® Xeon® Processor D-2146NT, CPU TDP support 80W
Cores / Cache	■ 8 cores, 16 threads

System Memory

Memory Capacity	■ Up to 256GB Registered ECC RDIMM, DDR4-2133MHz; Up to 512GB LRDIMM LRDIMM, DDR4-2133MHz, in 4 DIMM slots
Memory Type	■ 2666/2400/2133MHz ECC DDR4 RDIMM, LRDIMM ■ (Operating speed up to 2133MHz)
DIMM Sizes	■ RDIMM: 16GB, 32GB, 64GB, 128GB ■ LRDIMM: 16GB, 32GB, 64GB, 128GB
Memory Voltage	■ 1.2V

On-Board Devices

Chipset	■ System on Chip
SATA	■ SoC controller for 12 SATA3 (6 Gbps) ports; RAID 0,1,5,10
IPMI	■ ASPEED AST2500
Network Controllers	■ Quad LAN with Intel® Ethernet Controller I350-AM4 Dual LAN with 10G SFP+ LAN via SoC Dual LAN with 10Gbase-T
Graphics	■ Aspeed AST2500 BMC

Input / Output

SATA	■ 4 SATA3 ports via SoC controller
LAN	■ 4 RJ45 Gigabit Ethernet LAN ports ■ 2 RJ45 10GBase-T ports ■ 2 10G SFP+ LAN ports
USB	■ 2 USB 2.0 ports (2 headers, Type A)) ■ 2 USB 3.0 ports (2 rear)
Video Output	■ 1 VGA D-Sub Connector port
Serial Port / Header	■ 1 COM Port (1 header)
TPM	■ 1 TPM Header

Expansion Slots

PCI-E	■ 1 PCI-E 3.0 x8, ■ 1 PCI-E 3.0 x16
M.2	■ M.2 Interface: 1 PCI-E 3.0 x4 and 1 SATA/PCI-E 3.0 x2 ■ Form Factor: 2242/2280 ■ Key: M-Key , B-Key

System BIOS

BIOS Type	■ UEFI 128Mb
BIOS Features	■ ACPI 6.1 ■ SMBIOS 3.1 ■ UEFI 2.6 ■ PCI FW 3.2

Management

Software	■ IPMI2.0, KVM with dedicated LAN, Watchdog
Power Configurations	■ +12V DC Power Input ■ ACPI Power Management ■ CPU thermal trip support for processor protection

PC Health Monitoring

Voltage	■ +1.5V, +12V, +3.3V, +5V, +5V standby, 5 (4-pin), 5 -fan status, Monitors CPU voltages, System level control
FAN	■ 6x 4-pin fan headers (up to 6 fans), 6 fans with tachometer status monitoring, Dual Cooling Zone, Fan speed control, Overheat LED indication, PWM fan speed control, System level control, Thermal control tachometer fan connectors
Temperature	■ N/A
LED	■ N/A
Other Features	■ 12V DC or ATX Power Source, 8-pin 12v DC power connector, ACPI power management, ATX Power connector, Chassis intrusion header, CPU thermal trip support for processor protection, Dual Cooling Zones, Intel® QuickAssist Technology , M.2 NGFF connector, RoHS

Operating Environment

Operating Temperature Range	■ 0°C ~ 60°C (32°F ~ 140°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-X11SDV-8C-TP8F	1	X11SDV-8C-TP8F Motherboard
I/O Cables	CBL-0044L	2	57.5CM SATA FLAT S-S PBF
I/O Shield	MCP-260-00098-0N	1	STD I/O SHIELD

Optional Parts List			
Name	Part Number	Qty	Description
1U I/O Shield	MCP-260-00100-0B	1	1U I/O Shield for X10SDV-8C-TP8F in SC510/SC505/SC504 chassis
1U I/O Shield	MCP-260-00099-0N	1	1U I/O Shield for X10SDV-8C-TP8F in SC813/SC514 chassis
SAS/SATA Cable	CBL-SAST-0616	1	MINI SAS HD-4 SATA, INT, 50CM, 50CM SB, 30AWG
SATA Power Cable	CBL-PWEX-0982	1	PWR EXT,1X4F/P2.50 TO SATA POWER, 25CM, 22AWG

Chassis (Optimized for X11SDV-8C-TP8F)

Embedded Compact	1U	2U	3U	Mid/Mini-Tower	4U/Tower
	SC505-203B SC504-203B SC813MFTQ-R400CB SC512F-260 SC512-260B				

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

Server (Optimized for X11SDV-8C-TP8F)

Server Name
<u>SYS-5019D-FN8TP</u>
<u>SSG-5019D8-TR12P</u>
<u>SYS-E300-9D-8CN8TP</u>
<u>SYS-1019D-FRN8TP</u>
<u>SYS-E301-9D-8CN8TP</u>