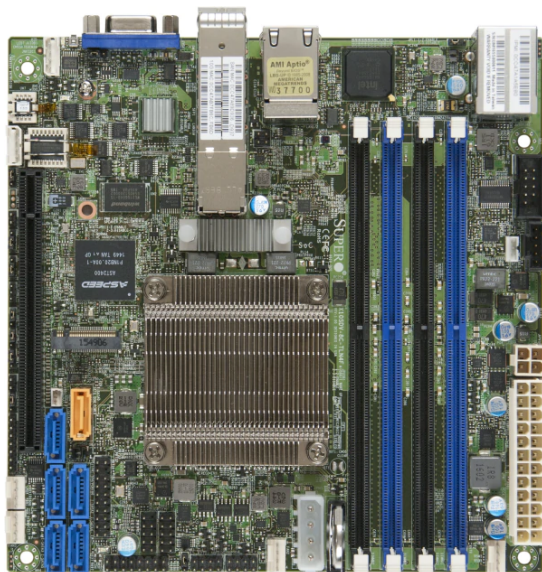


X10SDV-16C-TLN4F+



Xeon D SoC 16-Core Dual 10G SFP+ Embedded

Key Features

1. Intel® Xeon® processor D-1587, Single socket FCBGA 1667; 16-Core, 32 Threads, 65W
2. System on Chip
3. Up to 128GB ECC RDIMM DDR4 2133MHz or 64GB ECC/non-ECC UDIMM in 4 sockets
4. 1 PCIe 3.0 x16, M.2 PCIe 3.0 x4 (SATA support), M Key 2242/2280
5. 2 10G SFP+ and 2 GbE LAN ports
6. 6 SATA3 (6Gbps) ports via SoC
7. 2 USB 3.0 ports (rear)
2 USB 2.0 ports (via header)
8. 1 SuperDOM, 1 COM, TPM header, GPIO and SMBus headers
9. 12V DC Input and ATX Power Source

Links & Resources

[Tested Memory List](#)

[Tested HDD / SSD List](#)

[Tested M.2 List](#)

[Motherboard Manual](#)

[Quick Reference Guide](#)

[Update Your BIOS](#)

[BMC/IPMI Firmware](#)

[Download the Latest Drivers and Utilities](#)

[Download Drivers CD](#)

[OS Compatibility](#)

Specifications

Product SKUs

MBD-X10SDV-16C-TLN4F+	■ X10SDV-16C-TLN4F+
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Physical Stats

Form Factor	■ Mini-ITX
Dimensions	■ 6.7" x 6.7" (17.02cm x 17.02cm)

Processor/Cache

CPU	■ Intel® Xeon® Processor D-1587. ■ Socket FCBGA1667 supported, CPU TDP support 65W
Cores / Cache	■ 16 cores, 32 threads / 24MB cache

System Memory

Memory Capacity	■ Up to 128GB Registered ECC RDIMM, DDR4-2133MHz ■ Up to 64GB Unbuffered ECC/non-ECC UDIMM, DDR4-2133MHz, in 4 DIMM slots
Memory Type	■ 2133/1866/1600MHz ECC DDR4 ECC RDIMM and ECC/Non-ECC UDIMM
DIMM Sizes	■ 4GB, 8GB, 16GB, 32GB
Memory Voltage	■ 1.2V
Error Detection	■ Corrects single-bit errors ■ Detects double-bit errors (using ECC memory)

On-Board Devices

Chipset	■ System on Chip
SATA	■ SoC controller for 6 SATA3 (6 Gbps) ports; RAID 0,1,5,10 ■ RSTe
IPMI	■ Support for Intelligent Platform Management Interface v.2.0 ■ IPMI 2.0 with virtual media over LAN and KVM-over-LAN support
Network Controllers	■ Dual LAN with 10G SFP+ LAN via SoC ■ Dual LAN with 1GbE LAN via Intel® i350-AM2 Single LAN with Virtual Machine Device Queues reduce I/O overhead Single LAN with 1 Realtek RTL8211E PHY (dedicated IPMI) Single LAN with Supports 10Base-T, 100BASE-TX, and 1000BASE-T, RJ45 output
Graphics	■ Aspeed AST2400 BMC

Input / Output

SATA	■ 6 SATA3 (6Gbps) port
LAN	■ 2 10G SFP+ LAN ports ■ 2 1GbE LAN ports ■ 1 RJ45 Dedicated IPMI LAN port
USB	■ 2 USB 2.0 ports (2 headers, Type A)) ■ 2 USB 3.0 ports (2 rear)
Video Output	■ 1 VGA port
Serial Port / Header	■ 1 COM Port (1 header)
TPM	■ TPM Header
Others	■ GPIO and SMBus headers

Expansion Slots

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

System BIOS

BIOS Type	■ 128Mb SPI Flash with AMI BIOS
BIOS Features	■ PCI 3.0 ■ ACPI 5.0 ■ USB Keyboard support ■ Hardware BIOS Virus protection ■ SMBIOS 2.8 ■ UEFI 2.4 ■ RTC (Real Time Clock) Wakeup

Management

Software	■ Intel® Node Manager, IPMI2.0, KVM with dedicated LAN, NMI, SUM, SuperDoctor® 5, Watchdog
System Management Software	■ IPMIView for Linux/Windows ■ IPMICFG ■ SUM ■ SuperDoctor 5
Power Configurations	■ ACPI Power Management ■ CPU Fan auto-off in sleep mode ■ Power-on mode for AC power recovery

PC Health Monitoring

Voltage	■ +12V, +3.3V, +5V, 1.2V (VDIMM), Chassis intrusion header, System level control
FAN	■ 4x 4-pin fan headers (up to 4 fans), 4 fans with tachometer monitoring, Dual Cooling Zone, Low noise fan speed control, Pulse Width Modulated (PWM) fan connectors, Status monitoring for on/off control, Status monitoring for speed control
Temperature	■ CPU thermal trip support, Thermal Monitor 2 (TM2) support, Monitoring for CPU and chassis environment, PECI
LED	■ CPU / System Overheat LED
Other Features	■ 12V DC or ATX Power Source, Chassis intrusion detection, Chassis intrusion header, RoHS

Operating Environment

Operating Temperature Range	■ 0°C ~ 60°C (32°F ~ 140°F)
Non-Operating Temperature Range	■ -40°C - 85°C (-40°F - 185°F)
Operating Relative Humidity Range	■ 10% ~ 85% (non-condensing)
Non-Operating Relative Humidity Range	■ 10% ~ 95% (non-condensing)

Parts List

Parts List (Bulk Package)			
Name	Part Number	Qty	Description
Motherboard	MBD-X10SDV-16C-TLN4F+	1	X10SDV-16C-TLN4F+ 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-8/12/16C-TLN4F+ in CSE-510/505/504
1U I/O Shield	MCP-260-00099-0N	1	1U I/O shield for X10SDV-8/12/16C-TLN4F+ in SC813/SC514/SC515