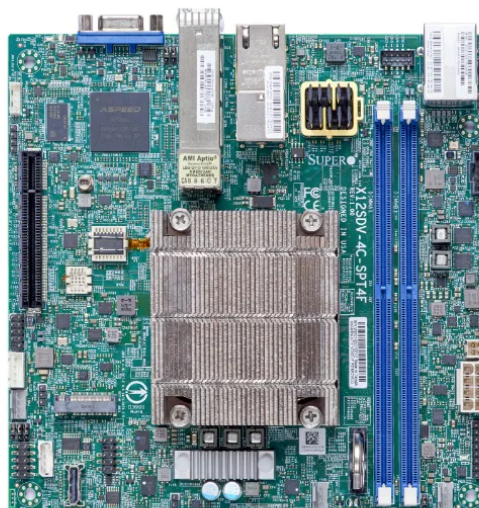


# X12SDV-8C-SPT4F

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**Embedded  
Xeon D SoC**  
**Dual 25GbE LAN**  
**Dual 10GBase-T LAN**  
**IPMI**

## Key Features

System on Chip

Intel® Xeon® Processor D-1736NT, CPU TDP 67W, Intel Quick Assist Technology

Up to 128GB Registered ECC RDIMM, DDR4-2667MHz, in 2 DIMM slots

1 PCIe 4.0 x8

1 OCuLink Connector (4 SATA/PCIe 3.0 x4)

1 M.2 M-Key 2280 (SATA/PCIe 4.0 x4)

Dual 25G SFP28 with Intel SoC

Dual 10Gbase-T RJ-45 with Intel® Ethernet Controller X550-AT2

12V DC or ATX Power Input

## Optimized Servers

[SYS-E200-12D-8C](#)

## Specifications

**Product SKUs****MBD-X12SDV-8C-SPT4F****Physical Stats****Form Factor**

Mini-ITX

**Dimension**

6.75" x 6.75" (17.15cm x 17.15cm)

**Processor****CPU**

Intel® Xeon® Processor D-1736NT

Single Socket FCBGA-2227 supported, CPU TDP supports Up to 67W TDP

**Core**

Up to 8 cores / 15MB Cache

**System Memory****Memory Capacity**

2 DIMM slots

Up to 128GB ECC RDIMM, DDR4-2666MHz; Up to 128GB ECC/non-ECC , DDR4-2666MHz

**Memory Type**

2666/2400 MT/s ECC/non-ECC DDR4 RDIMM

**DIMM Sizes**

RDIMM: 8GB, 16GB, 32GB, 64GB

UDIMM: 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 4 SATA3 (6 Gbps) ports; RAID 0,1,5,10

4 SATA ports via OcuLink (or PCIe3.0 x4 for NVMe)

**IPMI**

ASPEED AST2600 BMC

**Graphics**

1 Aspeed AST2600 BMC port(s)

**Network Controllers**

Dual LAN with 25G SFP28 LAN via SoC

Dual LAN with 10GBase-T with Intel® X550

**Input / Output****LAN**

2 SFP28 25 Gigabit Ethernet LAN ports

2 RJ45 10GBase-T ports

**USB**

2 USB 2 port(s) (2 via header)

2 USB 3 port(s) (2 rear type A)

**Video Output**

1 VGA D-Sub Connector port(s)

**Serial Port**

1 COM Port(s) (1 header)

**TPM**

1 TPM Header &amp; Chip both

**Expansion Slots****PCIe**

1 PCIe 4.0 x8,

1 PCIe 3.0 x4 (or 4x SATA), via Oculink

**M.2**

M.2 Interface: 1 SATA/PCIe 4.0 x4

Form Factor: 2280

Key: M-Key

**System BIOS****BIOS Type**

AMI 32MB SPI Flash EEPROM

**BIOS Features**

ACPI 6.3

UEFI 2.7

SMBIOS 3.3

Plug and Play (PnP)

PCI FW 3.0

**Management****Software**[Redfish API](#), [Supermicro Server Manager \(SSM\)](#),[Supermicro Update Manager \(SUM\)](#), [SuperDoctor® 5](#),[Super Diagnostics Offline](#), [KVM with dedicated LAN](#),[IPMI 2.0](#)**Power Configurations**

ATX Power connector, +12V DC Power Input, CPU thermal trip support for processor protection, Power-on mode for AC power recovery

**Security****Hardware**

Trusted Platform Module (TPM) 2.0

**PC Health Monitoring****Voltage**

3.3V standby, +5V standby, +5V, +3.3V, +12V, Memory Voltages, Monitors CPU Core Voltages

**LED**

UID/Remote UID

BMC/IPMI Heartbeat LED

Overheat/Fan Fail/PWR Fail LED

Power Indicator LED

LAN temperature

**Temperature**

Monitoring for CPU and chassis environment

CPU thermal trip support

PECI

peripheral temperature

System temperature

Memory temperature

NVMe temperature

Platform Environment Control Interface (PECI)/TSI

**FAN**

3x 4-pin fan headers (up to 3 fans)

System level control

PWM fan speed control

Fan speed control

3 fans with tachometer monitoring

Overheat LED indication

**Other Features**

UID, RoHS, Node Manager Support, Chassis intrusion header, ATX Power connector, ACPI power management, 8-pin 12v DC power connector, 12V DC or ATX Power Source, Intel® QuickAssist Technology

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**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)

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## Parts List

### Standard Parts (Bulk Package)

**ATX Power Cable**

Part Number CBL-PWEX-1063 • [eStore](#)

Qty 1

Description 6CM ATX Power Signal Cable

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**I/O Shield**

Part Number MCP-260-00098-0N • [eStore](#)

Qty 1

Description Standard I/O Shield

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### Standard Parts (Retail Package)

**ATX Power Cable**

Part Number CBL-PWEX-1063 • [eStore](#)

Qty 1

Description 6CM ATX Power Signal Cable

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**COM Cable**

Part Number CBL-CDAT-0605

Qty 1

Description COM Cable 20cm

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**I/O Shield**

Part Number MCP-260-00098-0N • [eStore](#)

Qty 1

Description Standard I/O Shield

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**OCuLink to 4x SATA Cable**

Part Number CBL-SAST-0933 • [eStore](#)

Qty 1

Description 50CM OCuLink to 4x SATA Cable

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**OCuLink to U.2 Cable**

Part Number CBL-SAST-0956 • [eStore](#)

Qty 1

Description 55CM OCuLink to U.2  
Cable with Molex Power  
Header

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**QRG**

Part Number MNL-2478-QRG  
Qty 1  
Description Motherboard Quick  
Reference Guide

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