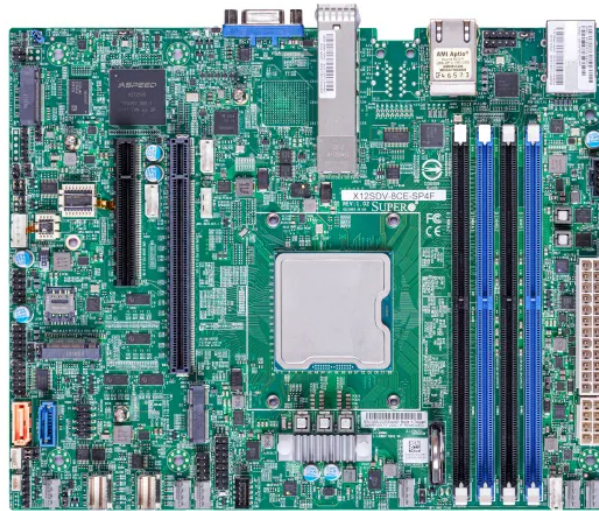


X12SDV-8CE-SP4F



**Embedded
Xeon D SoC**

Dual 25GbE LAN

Dual 1GbE LAN

IPMI

Extended working temperature

Key Features

System on Chip

Intel® Xeon® Processor D-1732TE, CPU TDP 52W

Up to 256GB Registered ECC RDIMM, DDR4-2667MHz, in 4 DIMM slots

1 PCIe 4.0 x16 or 2 PCIe 4.0 x8

1 M.2 M-Key 2280 (SATA/PCIe 3.0 x4)

1 M.2 B-Key 2280/3042/3052 (USB/SATA/PCIe 3.0 x2)

1 M.2 E-Key 2230 (PCIe 3.0 x1)

2 PCIe 3.0 NVMe x4 SlimSAS Internal Port (4 SATA/PCIe 3.0 x4)

Dual 1G RJ45 with Intel® i210-IT

Dual 25G SFP28 with Intel SoC

SoC controller for 10 SATA3 (6 Gbps) ports; RAID 0,1,5,10

12V DC or ATX Power Input

Specifications

Product SKUs**MBD-X12SDV-8CE-SP4F****Physical Stats****Form Factor**

FlexATX

Dimension

9" x 7.25" (22.86cm x 18.42cm)

Processor**CPU**

Intel® Xeon® Processor D-1732TE

Single Socket FCBGA-2227 supported, CPU TDP supports Up to 52W TDP

Core

Up to 8 cores / 15MB Cache

System Memory**Memory Capacity**

4 DIMM slots

Up to 256GB ECC RDIMM, DDR4-2666MHz; Up to 256GB 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 10 SATA3 (6 Gbps) ports; RAID 0,1,5,10

8 SATA ports via SlimSAS (or 2 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 1GbE with Intel® I210

Input / Output**SATA**

2 SATA3 (6Gbps) port(s)

LAN

2 RJ45 Gigabit Ethernet LAN ports

2 SFP28 25 Gigabit Ethernet LAN ports

USB

4 USB 2 port(s) (4 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)

DOM1 SATA DOM (Disk on Module) power connector support**TPM**

1 TPM Header & Chip both

Expansion Slots**PCIe**

2 PCIe 3.0 x4 (or 4x SATA), via SlimSAS,

1 PCIe 4.0 x16 slots or 1 PCIe 4.0 x8 (N/A or 8/8)

M.2

M.2 Interface: 1 SATA/PCIe 3.0 x4; 1 USB3.0/SATA3.0/PCIe 3.0 x2; 1 PCIe 3.0 x1

Form Factor: 2280, 2280/3042/3052, 2230

Key: M-Key, B-Key, E-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

CPU thermal trip support

peripheral temperature

System temperature

Memory temperature

NVMe temperature

Platform Environment Control Interface (PECI)/TSI

FAN

6x 4-pin fan headers (up to 6 fans)

System level control

PWM fan speed control

Fan speed control

6 fans with tachometer status 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

Operating Environment**Operating Temperature Range**

-40°C - 60°C (-40°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

Standard Parts (Bulk Package)

I/O Shield

Part Number MCP-260-00098-0N •

[eStore](#)

Qty 1

Description Standard I/O Shield

SATA cable

Part Number CBL-0044L • [eStore](#)

Qty 2

Description 57.5CM SATA FLAT S-S
PBF

Standard Parts (Retail Package)

COM Cable

Part Number CBL-CDAT-0605

Qty 1

Description COM Cable 20cm

I/O Shield

Part Number MCP-260-00098-0N •

[eStore](#)

Qty 1

Description Standard I/O Shield

QRG

Part Number MNL-2362-QRG

Qty 1

Description Motherboard Quick
Reference Guide

SATA cable

Part Number CBL-0044L • [eStore](#)

Qty 2

Description 57.5CM SATA FLAT S-S
PBF

Screw Bag

Part Number FST-SCRW-0010

Qty 1

Description STAND-OFF, H=3MM,
2PCS/BAG

x4 SlimSAS to U.2 Cable

Part Number CBL-SAST-1240A-85
Qty 2
Description 40CM Slimline x4 to PCIe
SFF-8639

Optional Parts

Passive heatsink

Part Number SNK-C0145PL
Qty 1
Description 1U Passive Heatsink
