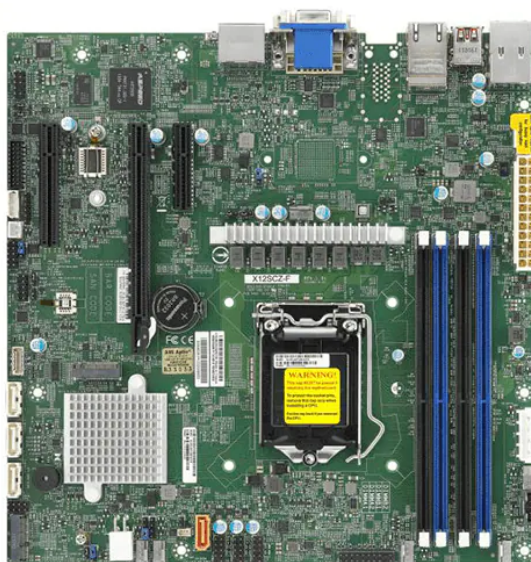


X12SCZ-F



**High Performance
Embedded
vPro AMT
IPMI**

Key Features

- 11th/10th Generation Intel® Core™ i9/Core™ i7/Core™ i5/Core™ i3 Processor, Intel® Xeon® W-1200 Processors
- Single Socket LGA-1200 (Socket H5) supported, CPU TDP supports Up to 125W TDP
- Single LAN with Intel® PHY I219LM LAN controller
- Single LAN with Intel® Ethernet Controller I210-AT
- Intel® W480E
- Up to 128GB Unbuffered ECC/non-ECC UDIMM, DDR4-2933MHz, in 4 DIMM slots
- 1 PCIe 3.0 x16,
- 1 PCIe 3.0 x4 (in x8 slot),
- 1 PCIe 3.0 x4
- 1 M.2 M-Key SATA/PCIe 3.0 x4, 2280/22110
- 1 M.2 E-Key CNVi/PCIe 3.0 x1, 2230
- Intel® W480E controller for 4 SATA3 (6 Gbps) ports; RAID 0,1,5,10
- 1 VGA D-Sub Connector port, 2 DP++(Dual-Mode DisplayPort) ports, 1 DVI - D port

Specifications

Product SKUs**MBD-X12SCZ-F****Physical Stats****Form Factor**

Micro-ATX

Dimension

9.6" x 9.6" (24.38cm x 24.38cm)

Processor**CPU**

Intel® Xeon® W-1200 Processors, 11th/10th Generation Intel® Core™ i9/Core™ i7/Core™ i5/Core™ i3 Processor

Single Socket LGA-1200 (Socket H5) supported, CPU TDP supports Up to 125W TDP

A graphic integrated CPU is required to have onboard video from the DVI and DP ports

Core

Up to 10 cores

Note

** Motherboard supports this maximum TDP. Please verify your system can thermally support.

**The X12SCZ does not support the Intel 10th/11th generation processor 2M cache SKUs. These processors will not boot with the latest BIOS version.

System Memory**Memory Capacity**

4 DIMM slots

Up to 128GB Unbuffered ECC/non-ECC UDIMM, DDR4-2933MHz

Memory Type

2933/2666/2400/2133 MT/s

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**

Intel® W480E

SATA

Intel® W480E controller for 4 SATA3 (6 Gbps) ports; RAID 0,1,5,10

IPMI

ASPEED AST2500

Audio

ALC 888S HD Audio

Graphics

1 Intel® HD Graphics port(s)

1 ASPEED AST2500 BMC port(s)

Network Controllers

Single LAN with Intel® PHY I219LM LAN controller

Single LAN with Intel® Ethernet Controller I210-AT

Input / Output**SATA**

4 SATA3 (6Gbps) port(s)

LAN

2 RJ45 Gigabit Ethernet LAN ports

USB

6 USB 3.2 Gen2 port(s) (4 rear type A; 2 via header)

6 USB 2.0 port(s) (6 via header)

Video Output

1 DVI - D port(s), 1 VGA D-Sub Connector port(s), 2 DP++(Dual-Mode DisplayPort) port(s)

Expansion Slots**PCIe**

1 PCIe 3.0 x4,

1 PCIe 3.0 x16,

1 PCIe 3.0 x4 (in x8 slot)

M.2

M.2 Interface: 1 SATA/PCIe 3.0 x4; 1 CNVi/PCIe 3.0 x1

Form Factor: 2280/22110, 2230

Key: M-Key, E-Key

System BIOS**BIOS Type**

AMI UEFI

BIOS Features

ACPI 6.1

SMBIOS 3.1

PCI FW 3.0

UEFI 2.6

RTC (Real Time Clock) Wakeup

Management**Software**[Redfish API](#), [SuperDoctor® 5](#), [Super Diagnostics Offline](#), [KVM with dedicated LAN](#), [IPMI 2.0](#)**System Management Software**

IPMI (Intelligent Platform Management Interface) v1.5 / 2.0 with KVM support

Power Configurations

ACPI Power Management, ATX Power connector, +12V DC Power Input

Security**Hardware**

Trusted Platform Module (TPM) 2.0

Features

Cryptographically Signed Firmware

Secure Boot

Secure Firmware Updates

System Lockdown

PC Health Monitoring**Voltage**

VBAT, PCH temperature, Memory, CPU, Chassis intrusion header, 5 -fan status, 1.2V (VDIMM), 1.05 (PCH), +5V standby, +5V, +3.3V, +12V

LED

UID/Remote UID

Power LED

BMC/IPMI Heartbeat LED

Temperature

Thermal Control for 5 Fan Connectors

FAN

5x 4-pin fan headers (up to 5 fans)

Fan speed control

Dual Cooling Zone

5 fans with tachometer status monitoring

Other Features

UID, RoHS, M.2 NGFF connector, Dual Cooling Zones, 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**

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)

Serial Port

1 COM Port(s) (1 header)

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

1 TPM TPM 2.0 onboard

Non Operating Relative Humidity Range

5% - 95% (non-condensing)

Parts List

Standard Parts (Bulk Package)

I/O Cables

Part Number CBL-0044L • [eStore](#)
 Qty 2
 Description 57.5CM SATA FLAT S-S PBF

I/O Shield

Part Number MCP-260-00093-0N •
[eStore](#)
 Qty 1
 Description Standard I/O Shield for
 X12SCZ with EMI Gasket

Standard Parts (Retail Package)

I/O Cables

Part Number CBL-0044L • [eStore](#)
 Qty 4
 Description 57.5CM SATA FLAT S-S PBF

I/O Shield

Part Number MCP-260-00093-0N •
[eStore](#)
 Qty 1
 Description Standard I/O Shield for
 X12SCZ with EMI Gasket

QRG

Part Number MNL-2257-QRG
 Qty 1
 Description Motherboard Quick
 Reference Guide

Optional Parts

1U I/O Shield

Part Number MCP-260-00094-0N
 Qty --
 Description 1U I/O Shield for X12SCZ
 with EMI Gasket in CSE-
 512/813

4U CPU Heat Sink for Socket H(optional, not included)

Part Number SNK-P0051AP4.
 Qty --
 Description 4U Active CPU Heat Sink

Serial Port Cable

Part Number	CBL-CDAT-0604 • eStore	CBL-CUSB-0984 • eStore
Qty	--	--
Description	Dual Serial Port cable with bracket 40cm	Dual Serial Port Breakout Cable 20cm

USB3.1 Cable

Part Number	CBL-CUSB-0835 • eStore
Qty	--
Description	Dual USB3.1 Type A Cable with Bracket
