



## Workstation

### Key Features

- 12th/13th Generation Intel® Core™ i3/i5/i7/i9 Processors, Single Socket LGA-1700 supported, Up to 150W TDP
- Intel® W680
- 128GB Unbuffered ECC/non-ECC UDIMM, DDR5-4400MT/s, 4 DIMM Slots
- 2 PCIe 5.0 x16 slots (16/NA or 8/8), 2 PCIe 3.0 x4 1.5V PCI 32bit
- M.2 Interface:** 3 PCIe 4.0 x4 (RAID 0, 1, 5) **M.2 Form Factor:** 2280 **M.2 Key:** M-Key
- Single LAN with Intel® Ethernet i225V Single LAN with Intel® PHY I219LM LAN controller for AMT/vPro
- 8 SATA3 (6 Gb, RAID 0, 1, 5, 10)
- 1 DP 1.4a, 1 HDMI 2.0b, 1 DVI-D

### Optimized Servers

[SYS-531A-IL \(/de/products/system/workstation/tower/sys-531a-il\)](#)

### Specifications

#### Product SKUs

MBD-X13SAE

#### Physical Stats

##### Form Factor

ATX

##### Dimension

12" x 9.6" (30.48cm x 24.38cm)

#### Processor

##### CPU

12th/13th Gen Intel® Core™ i3/i5/i7/i9

Processors

Single Socket LGA-1700 (Socket V0)

supported, CPU TDP supports Up to 150W

TDP

##### Core

Up to 24 (8+16) cores

#### System Memory

##### Memory Capacity

4 DIMM slots

Up to 192GB Unbuffered ECC/non-ECC

UDIMM, DDR5-4400MHz

##### Memory Type

4400/4000/3600 MT/s 192GB

##### DIMM Sizes

8GB, 16GB, 24GB, 32GB, 48GB

UDIMM: 8GB, 16GB, 24GB, 32GB, 48GB

##### Memory Voltage

1.1V

#### On-Board Devices

##### Chipset

Intel® W680

##### SATA

Intel® W680 controller for 8 SATA3 (6 Gbps)

ports; RAID 0, 1, 5, 10

##### Audio

ALC 888S HD Audio

##### Network Controllers

Single LAN with Intel® PHY I219LM LAN

controller

Single LAN with Intel® Ethernet i225V

#### Input / Output

##### LAN

1 RJ45 Gigabit Ethernet LAN ports

1 RJ45 2.5 Gigabit Ethernet LAN port

##### USB

4 USB 2.0 port(s) (2 rear; 2 via header)

2 USB 3.2 Gen2x2 port(s) (1 rear type C; 1

via header)

3 USB 3.2 Gen2x1 port(s) (3 rear type A)

3 USB 3.2 Gen1x1 port(s) (2 via header; 1

Vertical Type A)

##### Video Output

1 DVI - D port(s), 1 DP 1.4a port(s), 1 HDMI

2.0b port(s)

##### Serial Port

1 COM Port(s) (1 header)

##### TPM

1 TPM Header

#### Expansion Slots

##### PCIe

2 PCIe 5.0 x16 slots (16/NA or 8/8),

2 PCIe 3.0 x4

##### M.2

M.2 Interface: 3 PCIe 4.0 x4, RAID 0, 1, 5

Form Factor: 2280

Key: M-Key

##### Note

1.5V PCI 32bit

#### System BIOS

##### BIOS Type

256MB SPI Flash with AMI BIOS

##### BIOS Features

ACPI 6.0

Plug and Play (PnP)

BIOS rescue hot keys

Riser card auto-detection support

SMBIOS 3.0 or later

#### Management

##### System Management Software

SuperDoctor 5

##### Power Configurations

Power-on mode for AC power recovery,

ACPI Power Management, Power button

override mechanism, Wake-on-LAN

#### Security

##### Hardware

Trusted Platform Module (TPM) 2.0

#### PC Health Monitoring

##### Voltage

VBAT, System temperature, CPU

temperature, 3.3V standby, 1.05 (PCH),

+5V standby, +5V, +3.3V, +12V, CPU thermal

trip support, +1.8V PCH

##### LED

Power LED

Catastrophic Error LED

##### FAN

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

Fan speed control

Overheat LED indication

##### Other Features

CPU thermal trip support for processor

protection, Control of power-on for

recovery from AC power loss, Chassis

intrusion detection, ATX Power connector,

ACPI power management, 8-pin 12V DC

power connector

#### Operating Environment

##### Operating Temperature Range

0°C - 50°C (32°F - 122°F)

##### Non-Operating Temperature

##### Range

-20°C - 60°C (-4°F - 140°F)

### Parts List

#### Standard Parts (Bulk Package)

I/O Shield	
Part Number	MCP-260-00151-0N
Qty	1
Description	IO shield

SATA Cables	
Part Number	CBL-0044L • <a href="#">eStore</a> ( <a href="https://store.supermicro.com/supermicro-sata-flat-straight-straight-57-5cm-cable-cbl-0044l.html">https://store.supermicro.com/supermicro-sata-flat-straight-straight-57-5cm-cable-cbl-0044l.html</a> ).
Qty	2
Description	SATA Cables

#### Standard Parts (Retail Package)

I/O Shield	
Part Number	MCP-260-00151-0N
Qty	1
Description	IO shield

Quick Reference Guide	
Part Number	-
Qty	1
Description	Quick Reference Guide

SATA Cables	
Part Number	CBL-0044L • <a href="#">eStore</a> ( <a href="https://store.supermicro.com/supermicro-sata-flat-straight-straight-57-5cm-cable-cbl-0044l.html">https://store.supermicro.com/supermicro-sata-flat-straight-straight-57-5cm-cable-cbl-0044l.html</a> ).
Qty	4
Description	SATA Cables

#### Optional Parts

TPM security module (optional, not included)	
Part Number	AOM-TPM-9670V
Qty	1
Description	TPM for Intel Core CPU