X13SAE-F

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 VGA, 1 DVI-D, 1 Dedicated IPMI LAN Port

IPMI Supported

Specifications

Product SKUs
MBD-X13SAE-F

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
IPMI
ASPEED AST2600 BMC
Audio
ALC 888S HD Audio
Network Controllers
Single LAN with Intel® PHY I219LM LAN
controller, for AMT/vPro
Single LAN with Intel® Ethernet i225LM
Single LAN with Realtek RTL8211F PHY
(Dedicated for IPMI), Dedicated LAN for
IPMI

Input / Output
LAN
1 RJ45 Dedicated IPMI LAN port
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 VGA port(s), 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
Software
Redfish API
(/manuals/other/RedfishRefGuide.
pdf), Supermicro Server Manager
(SSM) (/solutions/SMS_SSM.cfm),
Supermicro Update Manager
(SUM) (/solutions/SMS_SUM.cfm),
SuperDoctor® 5
(/en/solutions/management-
software/superdoctor), Super
Diagnostics Offline
(/en/solutions/management-
software/super-diagnostics-
offline), KVM with dedicated LAN
(/manuals/other/BMC_IPMI_X13_
H13.pdf#page=112), IPMI 2.0
(/solutions/IPMI.cfm)
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 • eStore (https://store.supermicro.com/supermicro-sata-flat-straight-straight-57-5cm-cable-cbl-0044l.html)
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	MNL-2425-QRG
Qty	1
Description	Quick Reference Guide

SATA Cables
Part Number	CBL-0044L • eStore (https://store.supermicro.com/supermicro-sata-flat-straight-straight-57-5cm-cable-cbl-0044l.html)
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

Global SKU (/de/products/SMC_global_skus)