H13SAE-MF

ENGLISH

QUICK REFERENCE GUIDE

Revision 1.0c

Standardized Warning Statements
Motherboards

The following statements are industry standard warnings, provided to warn the user of situations where bodily injury might occur. Should you have questions or experience difficulty, contact Supermicro's Technical Support Department for assistance. Only certified technicians should attempt to install or configure components.

Read this section in its entirety before installing or configuring components in the Supermicro chassis.

WARNING: This product can expose you to chemicals including lead, known to the State of California to cause cancer and birth defects or other reproductive harm. For more information, go to www.P65Warnings.ca.gov.

Battery Handling

Warning!

There is a danger of explosion if the battery is replaced incorrectly. Replace the battery only with the same or an equivalent type recommended by the manufacturer. Dispose of used batteries according to the manufacturer's instructions.

警告

電池更換不當會有爆炸危險。請使用製造商建議之相同或功能相當的電池更換原有電池。請按照製造商的說明指示處理廢棄舊電池。

警告

电池更换不当会有爆炸危险。请只使用同类电池或制造商推荐的功能相当的电池更换原有电池。请按制造商的说明处理废旧电池。

電池の取り扱い

電池交換が正しく行われなかった場合、破裂の危険性があります。交換する電池はメーカーが推奨する型、または同等のものを使用下さい。使用済電池は製造元の指示に従って処分して下さい。

경고!

배터리가 올바르게 교체되지 않으면 폭발의 위험이 있습니다. 기존 배터리와 동일하거나 제조사에서 권장하는 동등한 종류의 배터리로만 교체해야 합니다. 제조사의 안내에 따라 사용된 배터리를 처리하여 주십시오.

هناك خطر من انفجار في حالة استبدال البطارية بطريقة غير صحيحة فعليك
استبدال البطارية
فقط بنفس النوع أو ما يعادلها كما أوصت به الشركة المصنعة
تخلص من البطاريات المستعملة وفقا لتعليمات الشركة الصانعة

Note: For complete product safety information, refer to http://www.supermicro.com/about/policies/safety_information.cfm.

限用物質含有情況標示聲明書

Declaration of the Presence Condition of the Restricted Substances Marking

設備名稱：主機板 / Motherboard
Equipment name

型號（型式）：H13SAE-MF
Type designation (Type)

單元Unit	限用物質及其化學符號 Restricted substances and its chemical symbols					
	鉛Lead (Pb)	汞Mercury (Hg)	鎘Cadmium (Cd)	六價鉻 Hexavalent chromium (Cr^{+6})	多溴聯苯 Polybrominated biphenyls (PBB)	多溴二苯醚 Polybrominated diphenyl ethers (PBDE)
電路板組件 (PCBA)	—	○	○	○	○	○
連接器 (Connector)	—	○	○	○	○	○

備考1. 〝超出0.1 wt %〞及〝超出0.01 wt %〞係指限用物質之百分比含量超出百分比含量基準值。

Note 1：“Exceeding 0.1 wt %” and “exceeding 0.01 wt %” indicate that the percentage content of the restricted substance exceeds the reference percentage value of presence condition.

備考2. 〝○〞係指該項限用物質之百分比含量未超出百分比含量基準值。

Note 2：“○” indicates that the percentage content of the restricted substance does not exceed the percentage of reference value of presence.

備考3. 〝—〞係指該項限用物質為排除項目。

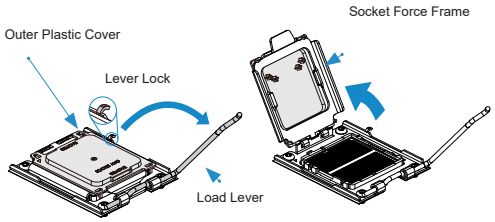
Note 3：The “–” indicates that the restricted substance corresponds to the exemption.

CPU Installation

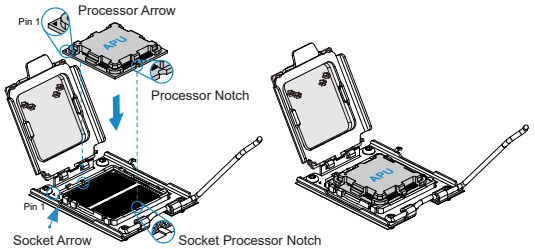
Installing the Processor

Note: Do not remove the plastic cover covering the outside of the socket. This cover will pop out during installation of the processor.

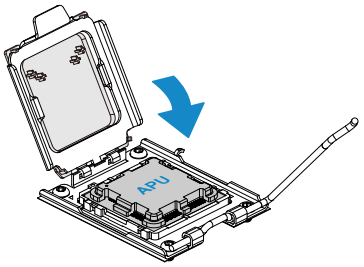
1. Use a finger to push down the lever, then move the lever rightward. Pull the lever until it passes over the processor socket.



2. Pick up the processor on its left and right edges. Hold the processor over the socket and align the arrow on the top-left corner of the processor with the arrow on the top-left corner of the socket. Gently lower it onto the AM5 socket pins.

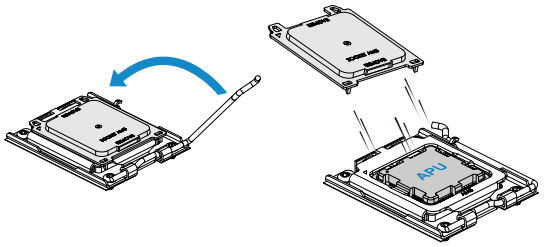


3. With the processor in the socket, lower the socket force frame.

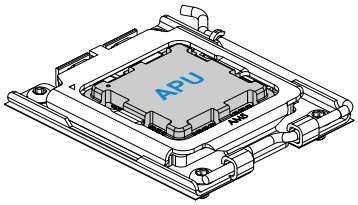


4. Reattach the lever arm onto the right side of the socket. The outer plastic cover will pop out when the lever arm is reattached.

   Note: Store the outer plastic cover. Attach the outer plastic cover to the socket force frame when storing or transporting the motherboard without a processor.

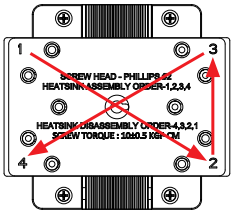


5. When finished, the socket force frame will secure the processor.

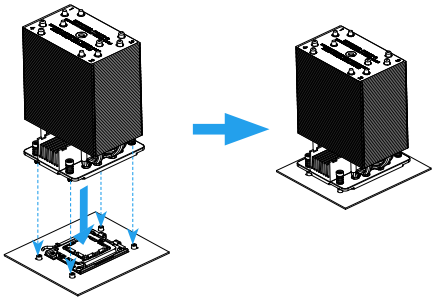


Heatsink Installation

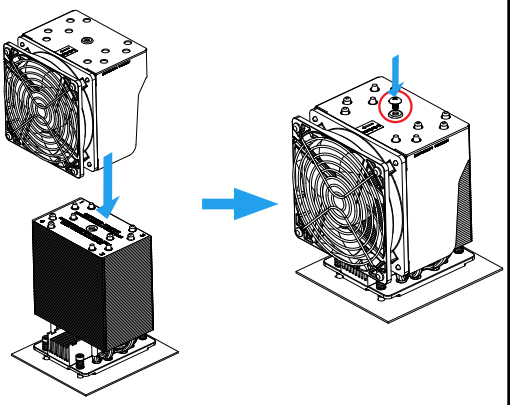
1. After the processor is secured, now you must install the heatsink to the socket frame. Lower the heatsink down until the four screws on the heatsink align with the four screw holes on the socket frame.



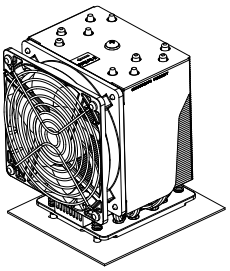
2. Using a diagonal pattern, tighten the four screws down on the heatsink in the sequence 1-2-3-4 till it is secured. The heatsink will now be secured and you have finished installing the processor and heatsink onto the motherboard. When finished, the heatsink will be secured over the socket and processor.



3. Install the heatsink cooling fan and holder assembly on the heatsink body and then tighten the single locking screw on top of the fan holder.

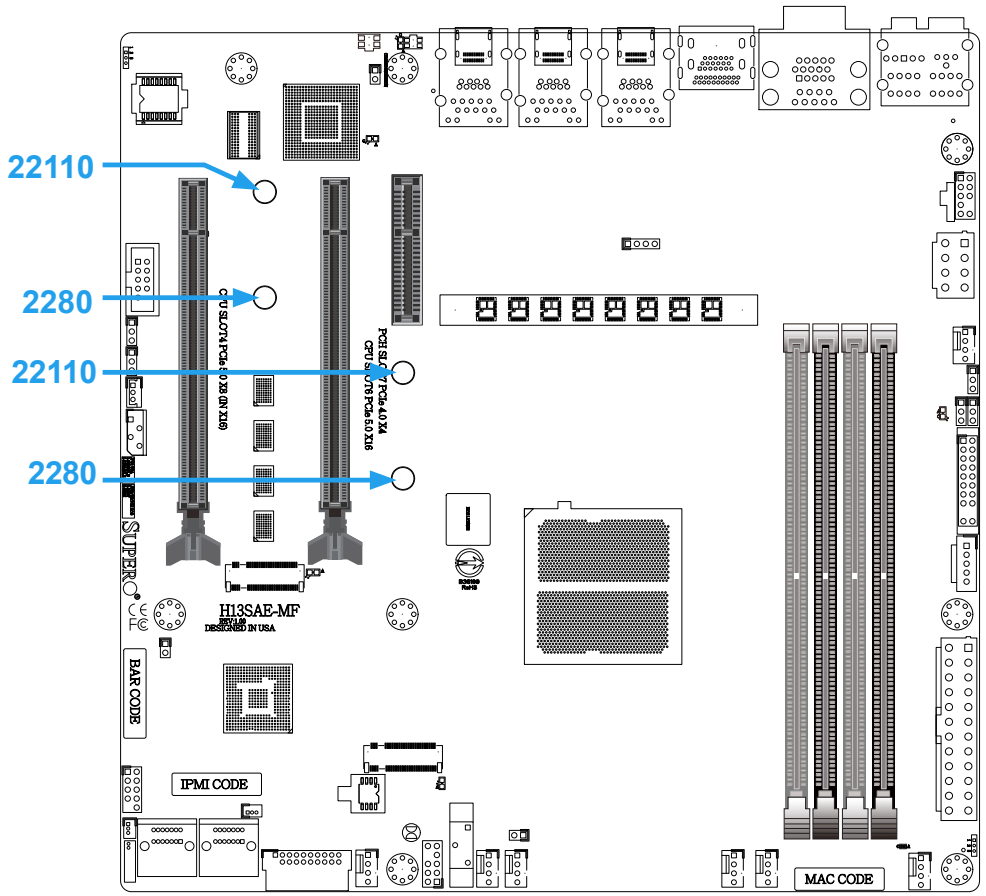


4. Connect cooling fan connector to the fan header labeled for CPU on the motherboard.



M.2 Device Installation

This motherboard has four M.2 M-key sockets that support the 2280 and 22110 M.2 devices. One standoff and a screw are pre-installed into the position of each 22110 mounting hole. Refer to the illustration below for the locations of M.2 sockets and mounting holes. Follow the steps on the next two pages to install the M.2 device.

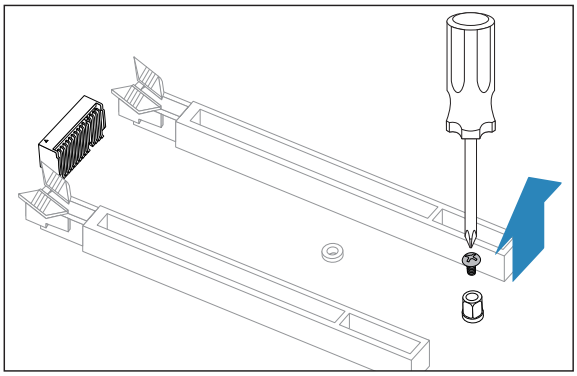


Notes:

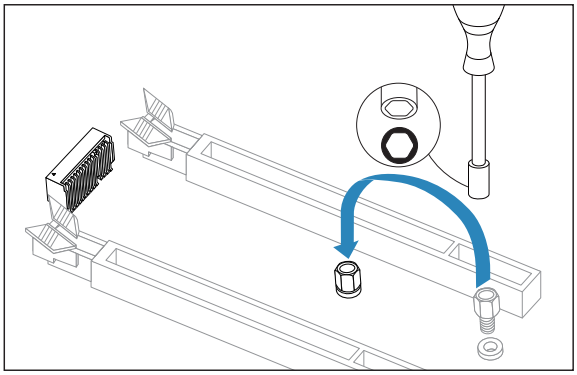
- It is strongly recommended that you install a heatsink on the M.2 device or use a M.2 device with a built-in heatsink.
- Be sure to install the M.2 device(s) prior to placing the motherboard into a chassis.

2280 M.2 Device Installation

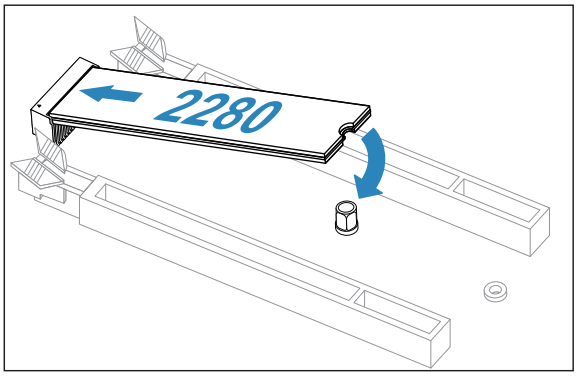
1. Locate the pre-installed standoff and screw. Remove the screw and set it aside.



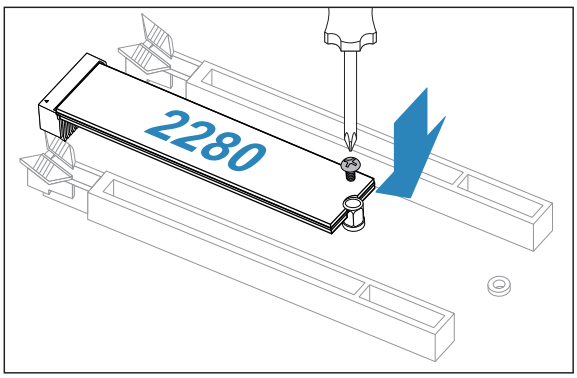
2. Using a hex socket screwdriver, remove and then re-install the standoff to the position of the 2280 mounting hole.



3. Insert the M.2 device into the M.2 socket at a 30-degree angle and press it down.

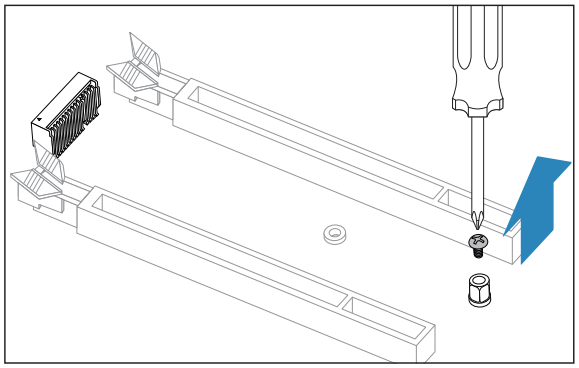


4. Tighten the screw to secure the M.2 device into place. Do not overtighten so as to avoid damaging the M.2 device.

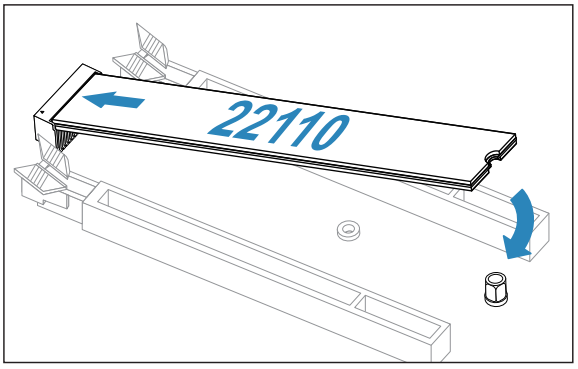


22110 M.2 Device Installation

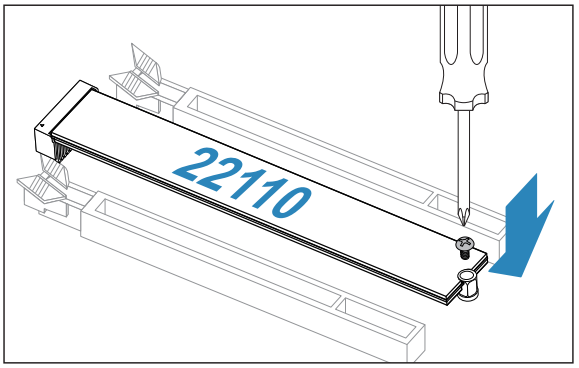
1. Locate the pre-installed screw. Remove the screw and set it aside.



2. Insert the M.2 device into the M.2 socket at a 30-degree angle and press it down.



3. Tighten the screw to secure the M.2 device into place. Do not overtighten so as to avoid damaging the M.2 device.



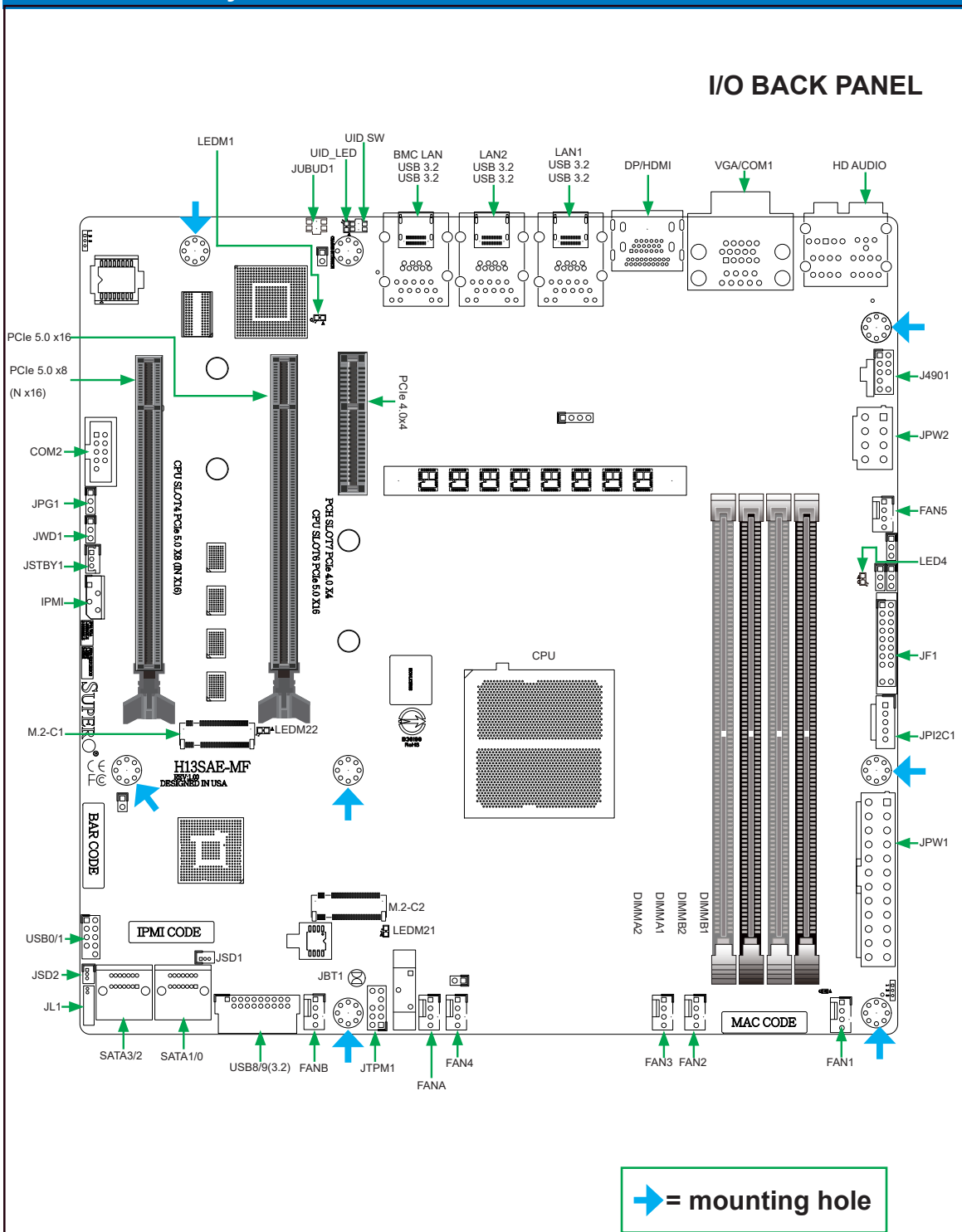
NOTES

SUPERMICRO®

H13SAE-MF

QUICK REFERENCE GUIDE REV. 1.0c

Motherboard Layout and Features



Package Contents

- One Supermicro Motherboard
- Four SATA Cables
- One I/O Shield
- One Quick Reference Guide

Jumpers and Connectors

Jumpers

Jumper	Description	Default
JBT1	Clear CMOS (Onboard)	Short Pads to Clear CMOS
UID SW	Unit ID Switch (Push-Button Toggle Switch ON/OFF)	Off
JPG1	VGA Enable	Pins 1-2 (Enabled)
JWD1	Watch Dog Control	Pins 1-2 (Reset)
JUBUD1	BIOS Update	Off

Connectors

Connector	Description
JL1	Chassis Intrusion Header
SATA0-1, SATA2-3	Dual SATA Port Connectors Supporting up to Four Devices
J4901	Front Panel HD Audio Header
JPW2	12V 8-pin CPU Core Power Supply Connector (Required)
JPW1	24-pin ATX Main Power Connector (Required)
JF1	Front Control Panel Header
BT1	Onboard Battery
M.2-C1/M.2-C2	M.2 PCIe Interfaces
JSTBY1	Inject External P5V_STBY Power
JIPMB1	4-pin BMC External I2C Header (For an IPMI-Supported Card)
DIMMA1~DIMMB2	DIMM Slots
FAN1~FAN5	CPU Fans
FANA~FANB	System Cooling Fans
BMC LAN	BMC LAN Port
JTPM1	TPM (Trusted Platform Module)/Port 80
JPI2C1	Power System Management Bus (SMB) I2C Header
COM1/COM2	Serial Port/Header
VGA	Rear Panel VGA Port
USB0/1	USB 2.0 Ports
USB2/4	Rear USB 3.2 Gen1 Alt Ports
USB3/5/7	Rear USB 3.2 Gen2 Ports
USB6	Rear USB 3.2 Gen2x2 Port
USB8/9	Front USB3.2 Gen1 Ports
PCIe 5.0 x8 (N x16)	PCIe 5.0 x8 (IN x16) Slot
PCIe 5.0 x16	PCIe 5.0 x16 Slo

LED Indicators

LED Indicators

LED	Description	Color/State
LED1	Unit Identifier (UID) LED	Blue: UID Identified
LED4	Onboard Power LED	Solid Green: Power On
LEDM1	BMC Heartbeat LED	Blinking Green: BMC Normal
LEDM21~LEDM22	M.2 SSD LED	Blinking Green: Device Working

CONTACT INFORMATION

- www.supermicro.com (Email: support@supermicro.com)
- Manuals: http://www.supermicro.com/support/manuals
- Drivers & Utilities: https://www.supermicro.com/wdl/
- Safety: http://www.supermicro.com/about/policies/safety_information.cfm

CPU and Memory Support

The H13SAE-MF motherboard supports up to 192 GB of ECC/Non ECC UDIMM DDR5 5600 MHz, populated in four DIMM slots. It is compatible with AMD EPYC™ 4005, 4004 Series or Ryzen™ 9000, 8700G* (for specific system SKU only) , and 7000 Series Desktop Processors. Refer to the section below for additional memory information.

Notes:

- Always use DDR5 DIMM modules of the same type, size and speed.
- For memory optimization, use only DIMM modules that have been validated by Supermicro. For the latest memory updates, please refer to our website at http://www.supermicro.com/products/motherboard.
- Please be aware that removing a DDR5 DIMM module at a slant angle may cause damages. It is recommend that you lift the module straight up out of the slot.
- The DDR5 DIMM module is NOT hot-swappable and be sure to disconnect power for a minimum of twenty seconds before inserting or removing it.

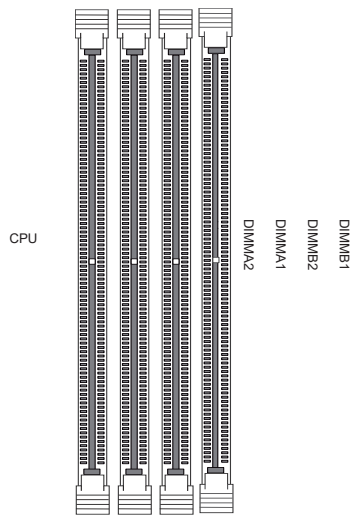
DIMM Memory Installation

Memory Population Guidelines

There is no specific order or sequence required when installing memory modules.

However do keep the following in mind:

- The motherboard supports up to 192GB of memory with speeds of up to 5200MT/s (2DPC) and 3600MT/s (1DPC).
- To achieve the best memory performance, fully populate the motherboard with validated memory modules and follow the recommended memory population rules and refer to the table below.



DIMM Population Guide

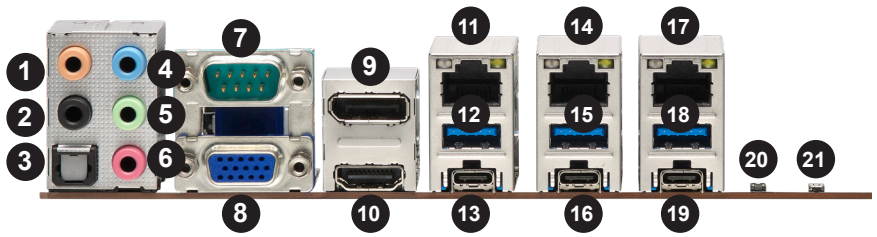
Type	Channel			
	A1	A2	B1	B2
1 DIMM			V	
2 DIMMs	V		V	
4 DIMMs	V	V	V	V

Notes

- Graphics shown in this quick reference guide are for illustration purposes only. Your components may or may not look exactly the same as the drawings shown in this guide.
- Refer to Chapter 2 of the User Manual for detailed information on jumpers, connectors, LED indicators, memory support and CPU/motherboard installation instructions.

Front Control Panel (JF1)

Back Panel I/O Connectors



Rear I/O Ports					
#	Description	#	Description	#	Description
1	Center/LFE Out	8	VGA Port	15	USB 3.2 Gen2 Type A (10 Gb)
2	Surround Out	9	DisplayPort 1.4a	16	USB 3.2 Gen2 Alt Mode*
3	S/PDIF Out	10	HDMI 2.0 Port	17	Dedicated IPMI LAN Port (1 Gb)
4	Line In	11	1 Gb RJ45 Port	18	USB 3.2 Gen2 Type A (10 Gb)
5	Line Out	12	USB 3.2 Gen2 Type A (10 Gb)	19	USB 3.2 Gen2x2 (20 Gb)
6	Mic In	13	USB 3.2 Gen2 Alt Mode*	20	UID
7	COM Port	14	1 Gb RJ45 Port	21	JUBUD1

*Video out only supports one output at the same time, and it must use Type C to DP (standard) cable.

MNL-2627-QRG-10c