



MAXER-5100

AI Inference Server

User's Manual 1st Ed

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Packing List

Before setting up your product, please make sure the following items have been shipped:

Item		Quantity
● MAXER-5100		1

If any of these items are missing or damaged, please contact your distributor or sales representative immediately.

About this Document

This User's Manual contains all the essential information, such as detailed descriptions and explanations on the product's hardware and software features (if any), its specifications, dimensions, jumper/connector settings/definitions, and driver installation instructions (if any), to facilitate users in setting up their product.

Users may refer to the product page at [AAEON.com](https://www.aaeon.com) for the latest version of this document.

Safety Precautions

Please read the following safety instructions carefully. It is advised that you keep this manual for future references

1. All cautions and warnings on the device should be noted.
2. All cables and adapters supplied by AAEON are certified and in accordance with the material safety laws and regulations of the country of sale. Do not use any cables or adapters not supplied by AAEON to prevent system malfunction or fires.
3. Make sure the power source matches the power rating of the device.
4. Position the power cord so that people cannot step on it. Do not place anything over the power cord.
5. Always completely disconnect the power before working on the system's hardware.
6. No connections should be made when the system is powered as a sudden rush of power may damage sensitive electronic components.
7. If the device is not to be used for a long time, disconnect it from the power supply to avoid damage by transient over-voltage.
8. Always disconnect this device from any power supply before cleaning.
9. While cleaning, use a damp cloth instead of liquid or spray detergents.
10. Make sure the device is installed near a power outlet and is easily accessible.
11. Keep this device away from humidity.
12. Place the device on a solid surface during installation to prevent falls
13. Do not cover the openings on the device to ensure optimal heat dissipation.
14. Watch out for high temperatures when the system is running.
15. Do not touch the heat sink or heat spreader when the system is running
16. Never pour any liquid into the openings. This could cause fire or electric shock.

17. As most electronic components are sensitive to static electrical charge, be sure to ground yourself to prevent static charge when installing the internal components. Use a grounding wrist strap and contain all electronic components in any static-shielded containers.
18. If any of the following situations arises, please the contact our service personnel:
 - i. Damaged power cord or plug
 - ii. Liquid intrusion to the device
 - iii. Exposure to moisture
 - iv. Device is not working as expected or in a manner as described in this manual
 - v. The device is dropped or damaged
 - vi. Any obvious signs of damage displayed on the device
19. **DO NOT LEAVE THIS DEVICE IN AN UNCONTROLLED ENVIRONMENT WITH TEMPERATURES BEYOND THE DEVICE'S PERMITTED STORAGE TEMPERATURES (SEE CHAPTER 1) TO PREVENT DAMAGE.**

FCC Statement

Warning!



This device complies with Part 15 FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received including interference that may cause undesired operation.

Caution:

There is a danger of explosion if the battery is incorrectly replaced. Replace only with the same or equivalent type recommended by the manufacturer. Dispose of used batteries according to the manufacturer's instructions and your local government's recycling or disposal directives.

Attention:

Il y a un risque d'explosion si la batterie est remplacée de façon incorrecte. Ne la remplacer qu'avec le même modèle ou équivalent recommandé par le constructeur. Recycler les batteries usées en accord avec les instructions du fabricant et les directives gouvernementales de recyclage.

China RoHS Requirements (CN)

产品中有毒有害物质或元素名称及含量

AAEON System

QO4-381 Rev.A2

部件名称	有毒有害物质或元素					
	铅 (Pb)	汞 (Hg)	镉 (Cd)	六价铬 (Cr(VI))	多溴联苯 (PBB)	多溴二苯醚 (PBDE)
印刷电路板 及其电子组件	×	○	○	○	○	○
外部信号 连接器及线材	×	○	○	○	○	○
外壳	○	○	○	○	○	○
中央处理器 与内存	×	○	○	○	○	○
硬盘	×	○	○	○	○	○
液晶模块	×	○	○	○	○	○
光驱	×	○	○	○	○	○
触控模块	×	○	○	○	○	○
电源	×	○	○	○	○	○
电池	×	○	○	○	○	○
本表格依据 SJ/T 11364 的规定编制。 ○：表示该有毒有害物质在该部件所有均质材料中的含量均在 GB/T 26572 标准规定的限量要求以下。 ×：表示该有害物质的某一均质材料超出了 GB/T 26572 的限量要求，然而该部件仍符合欧盟指令 2011/65/EU 的规范。 环保使用期限(EFUP (Environmental Friendly Use Period))：10 年 备注： 一、此产品所标示之环保使用期限，系指在一般正常使用状况下。 二、上述部件物质中央处理器、内存、硬盘、光驱、电源为选购品。 三、上述部件物质液晶模块、触控模块仅一体机产品适用。						

China RoHS Requirement (EN)

Name and content of hazardous substances in product

AAEON System

QO4-381 Rev.A2

Part Name	Hazardous Substances					
	铅 (Pb)	汞 (Hg)	镉 (Cd)	六价铬 (Cr(VI))	多溴联苯 (PBB)	多溴二苯醚 (PBDE)
PCB Assemblies	×	○	○	○	○	○
Connector and Cable	×	○	○	○	○	○
Chassis	○	○	○	○	○	○
CPU and Memory	×	○	○	○	○	○
Hard Disk	×	○	○	○	○	○
LCD Modules	×	○	○	○	○	○
CD-ROM/DVD-ROM	×	○	○	○	○	○
Touch Modules	×	○	○	○	○	○
Power	×	○	○	○	○	○
Battery	×	○	○	○	○	○
The table is prepared in accordance with the provisions of SJ/T 11364. ○ : Indicates that said hazardous substance contained in all of the homogenous materials for this product is below the limit requirement of GB/T 26572. × : Indicates that said hazardous substance contained in at least one of the homogenous materials used for this part is above the limit requirement of GB/T 26572. But this product still be compliance with 2011/65/EU Directive (allowed with 2011/65/EU Annex III of RoHS exemption with number 6(c),7(a),7(c)-1). EFUP (Environment Friendly Use Period) value: 10 years. Notes: 1. This product defined period of use is under normal condition. 2. In above part, CPU/Memory/ Hard Disk/CD-ROM/DVD-ROM/ Power are optional. 3. In above part, LCD Modules/ Touch Modules are for all-in-one product model.						

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Chapter 1

Product Specifications

1.1 Specifications

System

CPU	12th/13th/14th Generation Intel® Core™ LGA 1700 Socket Processors
GPU	NVIDIA RTX™ 2000 Ada
Chipset	Intel® Q670 Chipset
System Memory	DDR5 4800MHz DIMM x 4, Up to 128GB
Display Interface	VGA x 1 HDMI 2.0 x 2 DP 1.4 x 1
Storage Device	2.5" SSD x 1 3.5" HDD x 1
Ethernet	2.5GbE RJ-45 x 1 1GbE RJ-45 x 1
USB	USB 3.2 Gen 2 x 2 USB 3.2 Gen 1 x 2
Serial Port	DB-9 x 1 for RS-232/422/485
Audio	Audio Jack x 3 (Mic-in/Line-out/Line-In)
Expansion	PCIe Gen 4 [x16] x 1 PCIe Gen 4 [x16] x 1 PCIe Gen 3 [x1] x 1 PCIe Gen 3 [x4] x 1 M.2 2230 E-Key x 1 M.2 2280/2242 M-Key x 1 (PCIe Gen 4 [x4], SATA 6Gb/s)
TPM	TPM 2.0 Onboard
Indicator	TBD

System

OS support	Windows® 10 64-bit
	Windows® 11 64-bit
Drive Bay	2.5" SATA Drive Bay x 1
	3.5" SATA Drive Bay x 1
Front Control	USB 3.2 Gen 2 x 2
	USB 2.0 x 2 (via BUS-powered hub)
	Audio Jack x 2 (Mic-in, Line-out)
	Power Button x 1

Power Supply

Power Requirement	ATX 450W AC/DC Power supply
-------------------	-----------------------------

Mechanical

Mounting	Wall Mount
Dimensions (W x H x D)	12" x 3.7" x 10.9" (305mm x 95mm x 276mm)
Gross Weight	12.3 lb. (5.6Kg)
Net Weight	11 lb. (5Kg)

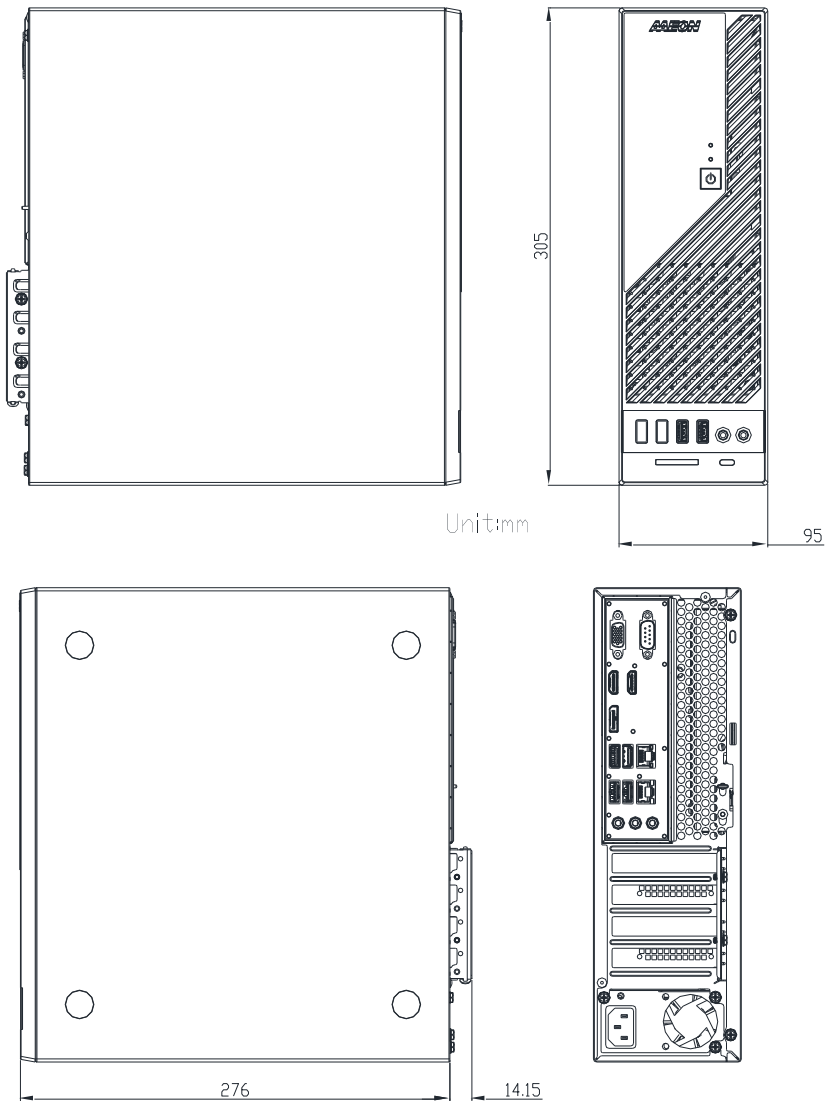
Environmental

Operating Temperature	32°F ~ 113°F (0°C ~ 45°C), according to IEC68-2 with 0.5
	m/s AirFlow
Storage Temperature	-40°F ~ 185°F (-25°C ~ 85°C)
Storage Humidity	5 ~ 95% @ 40°C, non-condensing
Certification	CE/FCC Class A

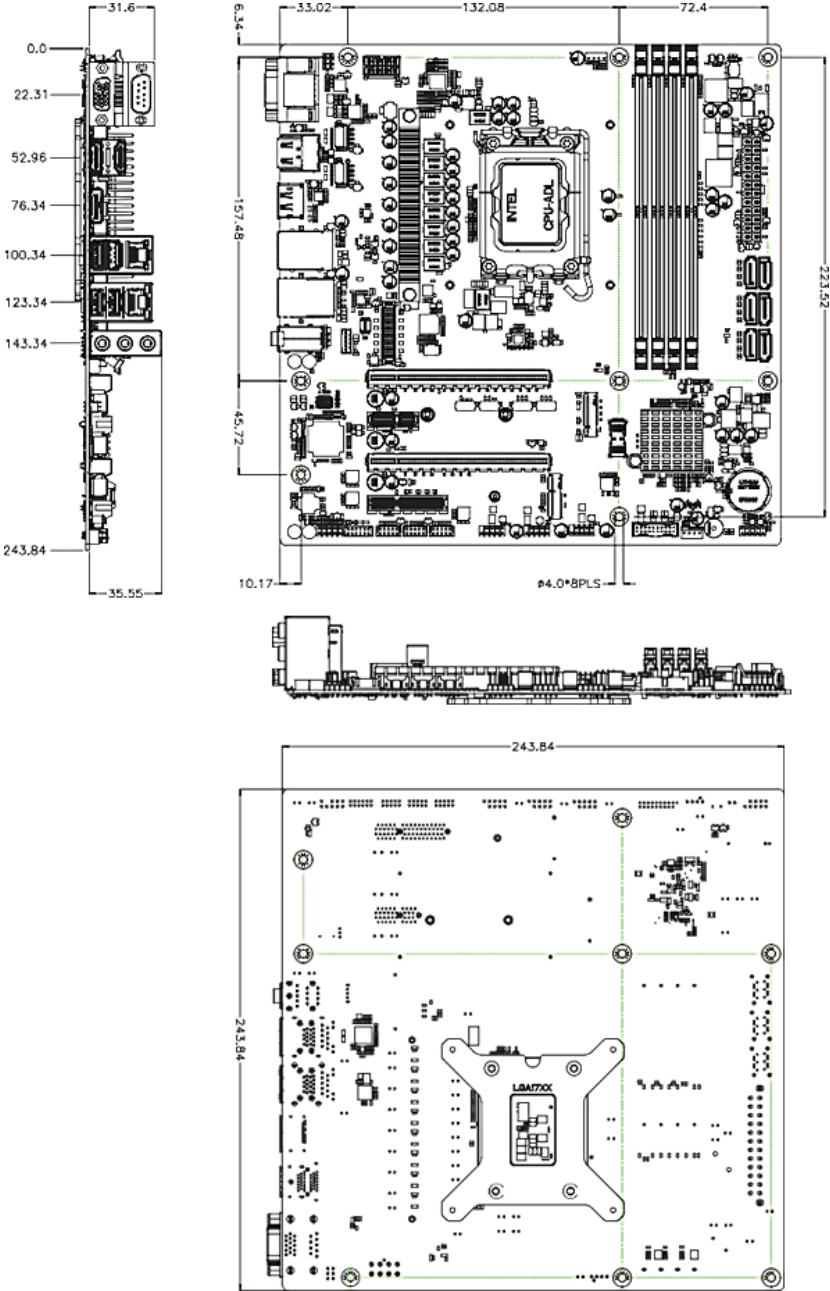
Chapter 2

Hardware Information

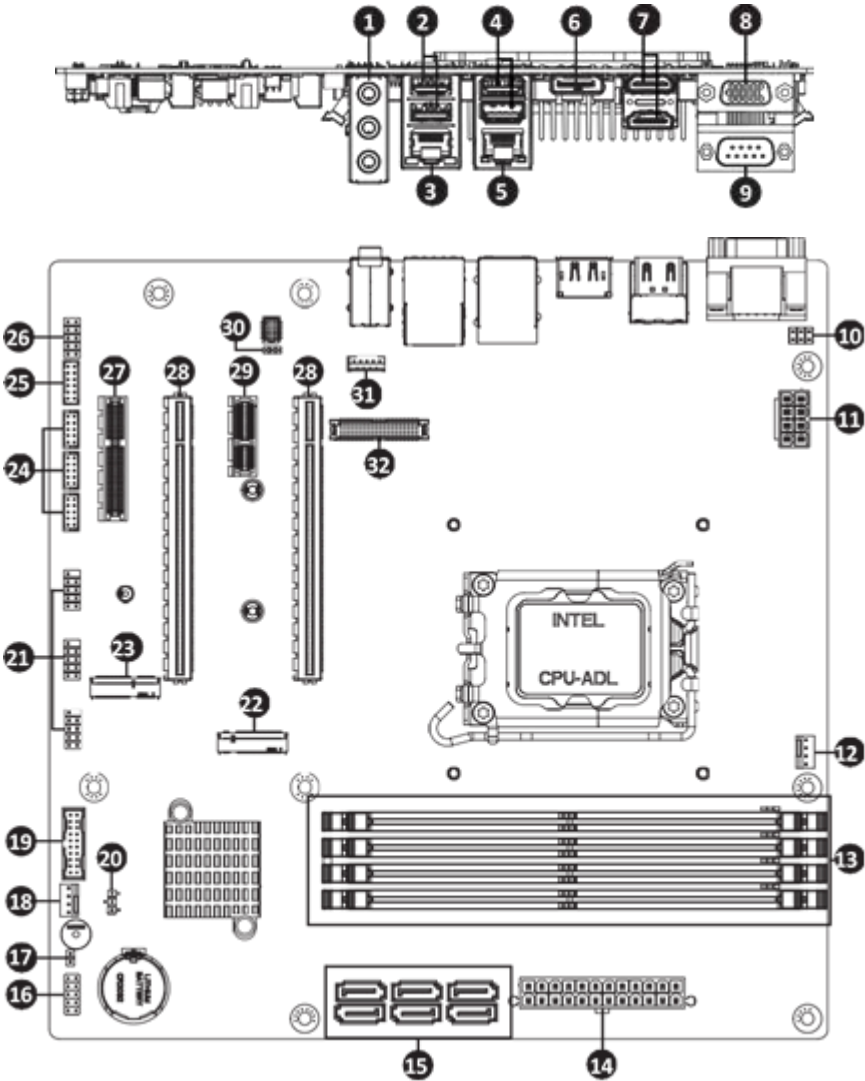
2.1 Dimensions



Board



2.2 Jumpers and Connectors



Note: The connectors listed on the PCB may not all be supported at the MAXER-5100 system-level product. For available interfaces, please follow section 2.4.

2.3 List of Jumpers and Connectors

The system has a number of jumpers that allow you to configure your system to suit your application.

The table below shows the function of each of the system's jumpers and connectors.

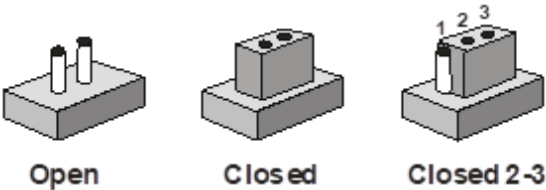
No.	Label	Function
1	AUDIO	Audio Jack x 3 (Line in, Line out, Mic in)
2	USB3_LAN2	USB 3.2 Gen 2
3		2.5GbE LAN Port
4	USB3_LAN1	USB 3.2 Gen 1
5		GbE LAN Port
6	DP	Display Port
7	HDMI_12	HDMI
8	VGA	VGA Port
9	COM1	COM 1 Port (RS-232/422/485 & RI/5V/12V)
10	JCOM1	RI Pin Voltage Selection Jumper for COM1 Port (RI/5V/12V)
11	P12V_CPU	8-Pin ATX 12V Power Connector (CPU Power)
12	CPU_FAN	CPU Fan Connector
13	DIMM_A1 ~ _A2 DIMM_B1 ~ _B2	DDR5 DIMM Sockets
14	ATX	24-Pin ATX Main Power Connector
15	SATA2 ~ SATA7	SATA 6Gb/s Connector x 6
16	F_PANEL	Front Panel Header
17	CASE_OPEN	Chassis Open Intrusion Alert Header
18	SYS_FAN	System Fan Connector
19	FUSB30	USB 3.2 Gen 1 Header
20	CLR_CMOS	Clear CMOS Jumper
21	FUSB2_1 ~ FUSB2_3	USB 2.0 Header
22	M2M	M.2 2242/2280 M-Key
23	M2E	M.2 2230 E-Key
24	COM2 ~ COM4	Serial Port Header (RS-232)
25	GPIO_CNT	GPIO Header
26	F_AUDIO	Front Panel Audio Header
27	PCIEX4	PCIe Gen 3 [x4] Slot
28	PCIEX16_A, PCIEX16_B	PCIe Gen 4 [x16]
29	PCIEX1	PCIe Gen 3 [x1]

No.	Label	Function
30	AT_CN	AT/ATX Mode Select Jumper
31	BKL_CN	Backlight Control Header
32	LVDS	LVDS Connector

2.3.1 Setting Jumpers

You configure your card to match the needs of your application by setting jumpers. A jumper is the simplest kind of electric switch. It consists of two metal pins and a small metal clip (often protected by a plastic cover) that slides over the pins to connect them. To “close” a jumper you connect the pins with the clip.

To “open” a jumper you remove the clip. Sometimes a jumper will have three pins, labeled 1, 2 and 3. In this case you would connect either pins 1 and 2 or 2 and 3.

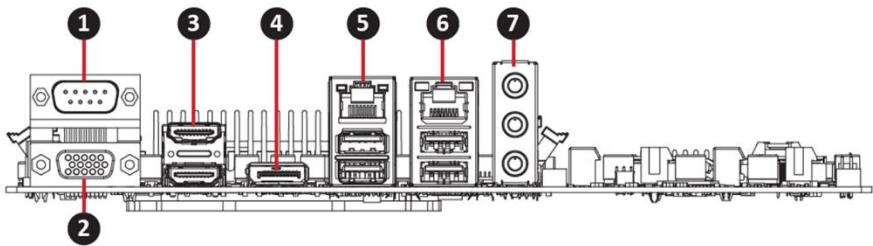


A pair of needle-nose pliers may be helpful when working with jumpers. If you have any doubts about the best hardware configuration for your application, contact your local distributor or sales representative before you make any change.

Generally, you simply need a standard cable to make most connections.

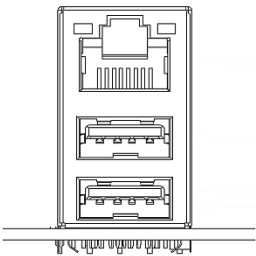
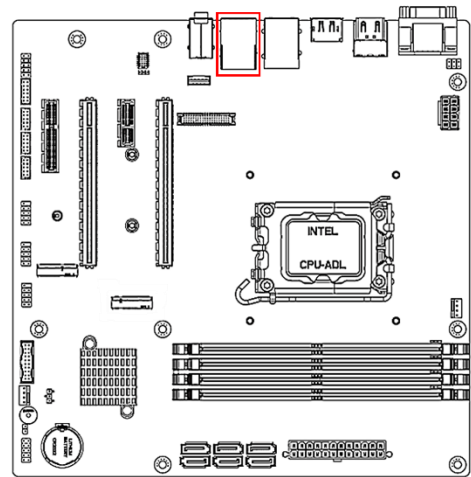
2.4 Rear I/O Ports

Rear Panel Ports



No.	Label	Function
1	COM1	COM 1 Port (RS-232/422/485 & RI/5V/12V)
2	VGA	VGA Port
3	HDMI_12	HDMI Port
4	DP	Display Port
5	USB3_LAN1	Top: GbE LAN x 1 Bottom: USB 3.2 Gen 1 x 2
6	USB3_LAN2	Top: 2.5GbE LAN x 1 Bottom: USB 3.2 Gen 2 x 2
7	AUDIO	Audio Jack x 3 (Line in, Line out, Mic in)

2.4.1 USB 3.2 Gen 2 + 2.5GbE LAN Port (USB3_LAN2)

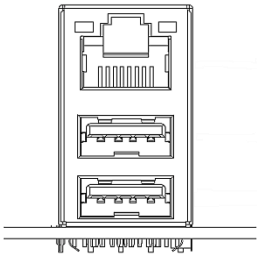
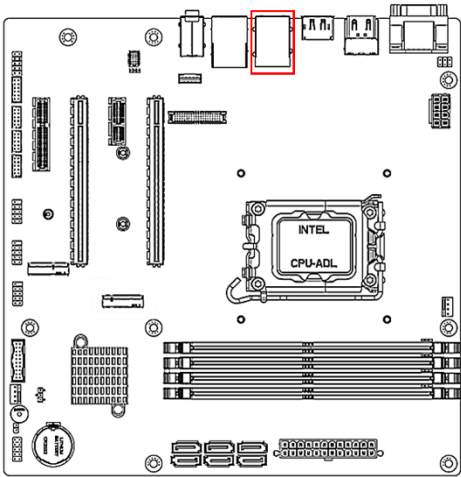


USB			
Pin	Function	Pin	Function
1	5V	10	5V
2	D1n	11	D0n
3	D1p	12	D0p
4	GND	13	GND
5	USB3_RX1n	14	USB3_RX2n
6	USB3_RX1p	15	USB3_RX2p
7	GND	16	GND
8	USB3_TX1n	17	USB3_TX2n
9	USB3_TX1p	18	USB3_TX2p

2.5GbE LAN			
Pin	Function	Pin	Function
1	TX1+	5	TX3-
2	TX1-	6	TX4+
3	TX2+	7	TX2-
4	TX3+	8	TX4-

State	Description
Orange On	1Gbps data rate
Green On	100Mbps data rate
Off	10Mbps data rate

2.4.2 USB 3.2 Gen 1 + 1GbE LAN Port (USB3_LAN1)

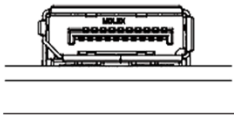
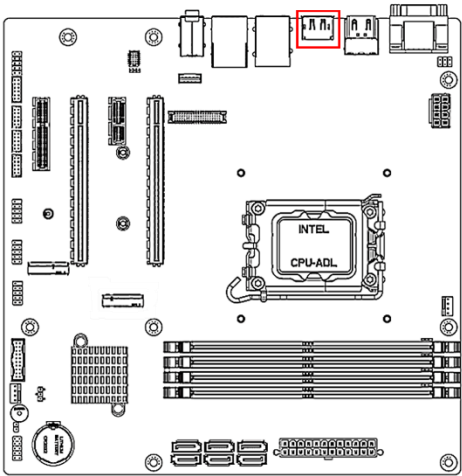


USB			
Pin	Function	Pin	Function
1	5V	10	5V
2	D1n	11	D0n
3	D1p	12	D0p
4	GND	13	GND
5	USB3_RX1n	14	USB3_RX2n
6	USB3_RX1p	15	USB3_RX2p
7	GND	16	GND
8	USB3_TX1n	17	USB3_TX2n
9	USB3_TX1p	18	USB3_TX2p

1GbE LAN			
Pin	Function	Pin	Function
1	TX1+	5	TX3-
2	TX1-	6	TX4+
3	TX2+	7	TX2-
4	TX3+	8	TX4-

State	Description
Orange On	1Gbps data rate
Green On	100Mbps data rate
Off	10Mbps data rate

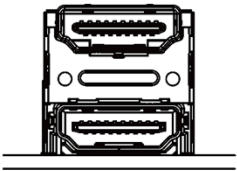
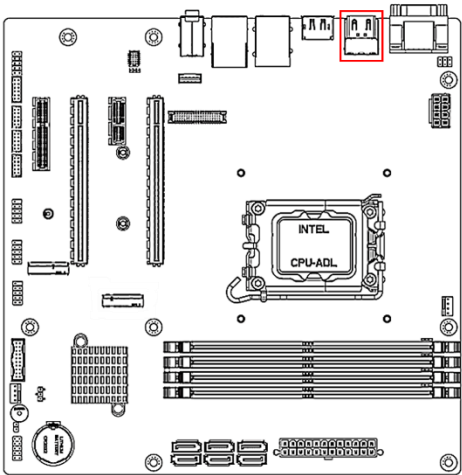
2.4.3 Display Port (DP)



Pin	Function	Pin	Function
1	TX0p	11	GND
2	GND	12	TX3n
3	TX0n	13	GND
4	TX1p	14	GND
5	GND	15	AUXp
6	TX1n	16	GND
7	TX2p	17	AUXn

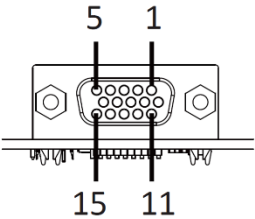
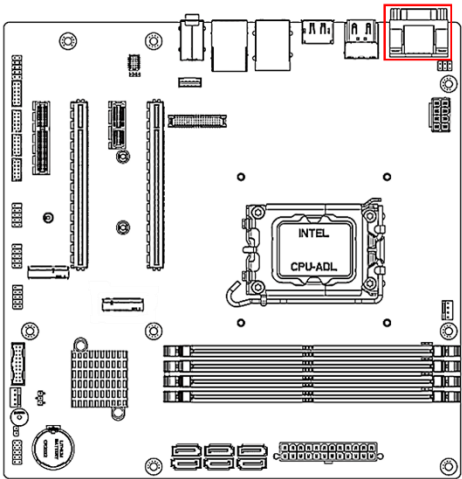
Pin	Function	Pin	Function
8	GND	18	Hot Plug Detect
9	TX2n	19	3.3V
10	TX3p	20	3.3V

2.4.4 HDMI (HDMI_12)



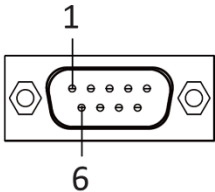
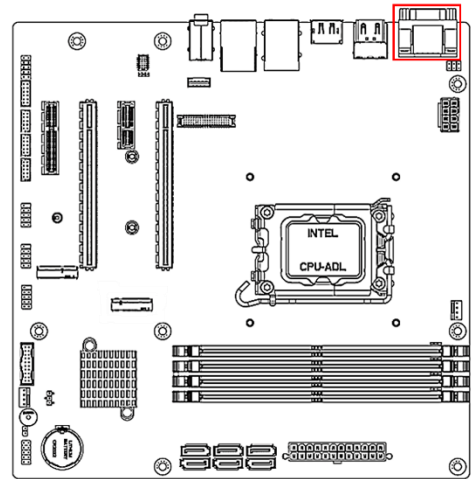
Pin	Function	Pin	Function
1	TX2p	11	GND
2	GND	12	CLKn
3	TX2n	13	NC
4	TX1p	14	NC
5	GND	15	SCL
6	TX1n	16	SDA
7	TX0p	17	GND
8	GND	18	5V
9	TX0n	19	Hot Plug Detect
10	CLKp		

2.4.5 VGA Port (VGA)



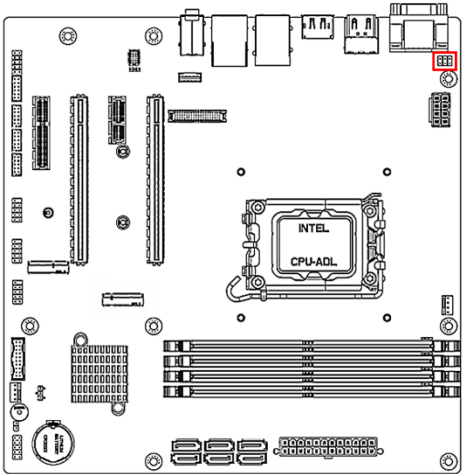
Pin	Function	Pin	Function
1	Red	9	5V
2	Green	10	GND
3	Blue	11	NC
4	NC	12	DDCSDA
5	GND	13	HSYNC
6	GND	14	VSYNC
7	GND	15	DDCSCL
8	GND		

2.4.6 COM 1 Port (RS-232/422/485 & RI/5V/12V) (COM1)



Pin	RS-232	RS-422 Full Duplex	RS-485 Half Duplex
1	DCD	TXD-	D-
2	RXD	TXD+	D+
3	TXD	RXD+	—
4	DTR	RXD-	—
5	GND		
6	DSR	—	—
7	RTS	—	—
8	CTS	—	—
9	RI	—	—

2.4.7 RI Pin Voltage Selection Jumper for COM1 (JCOM1)

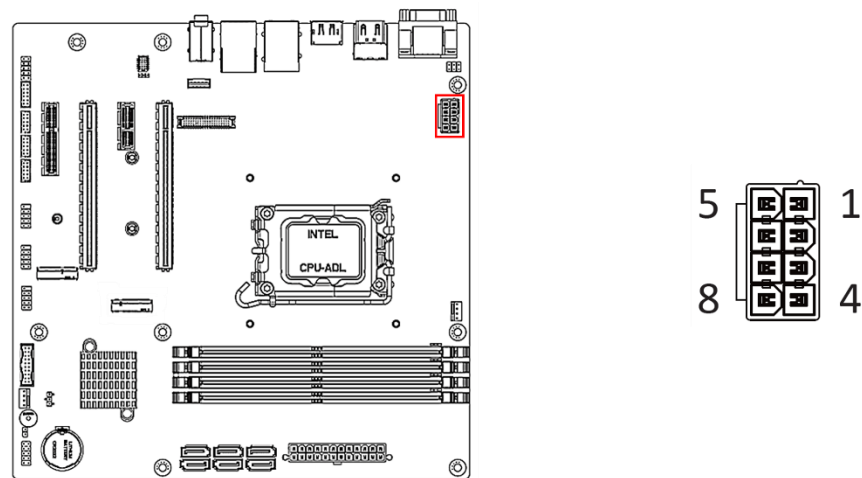


JCOM1 Jumper

5	8	8	1	1-2 Close:
6	8	8	2	5V (Power COM)
5	8	8	1	3-4 Close:
6	8	8	2	RI (Stand COM)
5	8	8	1	5-6 Close:
6	8	8	2	12V (Power COM)

Connector PN	Vendor
210-92-03GB01	PINREX
PH06R53BAZ000	HORNGTONG
Connector Type	
2x3pin header, pitch 2.54mm	

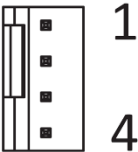
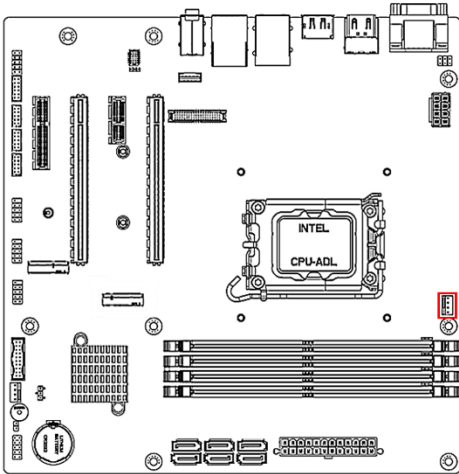
2.4.8 8-Pin ATX 12V Power Connector (CPU Power) (P12V_CPU)



Pin	Function
1	GND
2	GND
3	GND
4	GND
5	+12V
6	+12V
7	+12V
8	+12V

Connector PN	Vendor
740-96-085B61	PINREX
Connector Type	
2x4pin header, pitch 4.2mm	

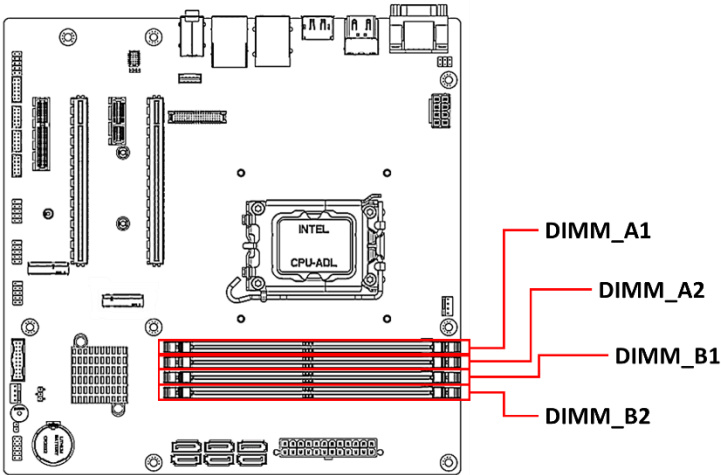
2.4.9 CPU Fan Connector (CPU_FAN)



Pin	Function
1	GND
2	12V
3	Detect
4	Speed Control

Connector PN	Vendor
744-81-045W11	PINREX
Connector Type	
1x4pin header, pitch 2.54mm	

2.4.10 DDR5 DIMM Sockets (DIMM_A1 ~ _A2/DIMM_B1 ~ _B2)



	DIMM_A1	DIMM_A2	DIMM_B1	DIMM_B2	Max Speed
Single Memory Module	DS/SS	—	—	—	4000 MHz
	—	DS/SS	—	—	4400 MHz
	—	—	DS/SS	—	4000 MHz
	—	—	—	DS/SS	4400 MHz
2 Memory Modules	—	DS/SS	—	DS/SS	4400 MHz
4 Memory Modules	DS/SS	DS/SS	DS/SS	DS/SS	3600 MHz

("SS"=Single-Sided, "DS"=Double-Sided, "—"=No Memory)

Dual Channel Memory Configuration

This system supports Dual Channel Memory Technology, which enhances memory performance by effectively doubling the memory bandwidth when enabled.

Once the memory modules are installed, the system BIOS will automatically detect their specifications and capacity. To ensure optimal performance and successful activation of Dual Channel mode, please review the following installation guidelines:

Dual Channel Configuration Guidelines

Dual Channel mode requires at least two memory modules. It cannot be enabled with a single module installed. For best compatibility and performance, it is recommended to use memory modules that are identical in capacity, brand, speed, and chip configuration.

Memory Channel Layout

The system provides four memory sockets, grouped into two independent channels:

Channel A: DIMM_A1, DIMM_A2

Channel B: DIMM_B1, DIMM_B2

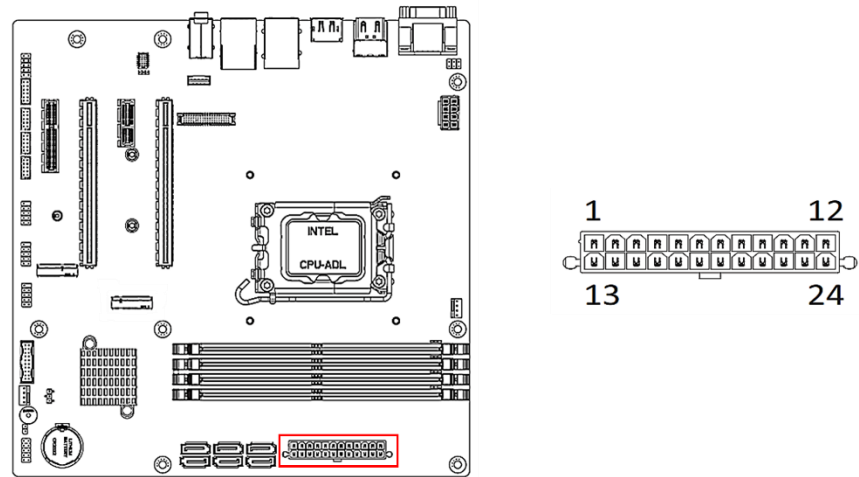
Recommended Installation Order

To enable Dual Channel mode, install memory modules according to the following configurations:

	DIMM_A1	DIMM_A2	DIMM_B1	DIMM_B2
2 Memory Modules	—	DS/SS	—	DS/SS
4 Memory Modules	DS/SS	DS/SS	DS/SS	DS/SS

("SS"=Single-Sided, "DS"=Double-Sided, "—"=No Memory)

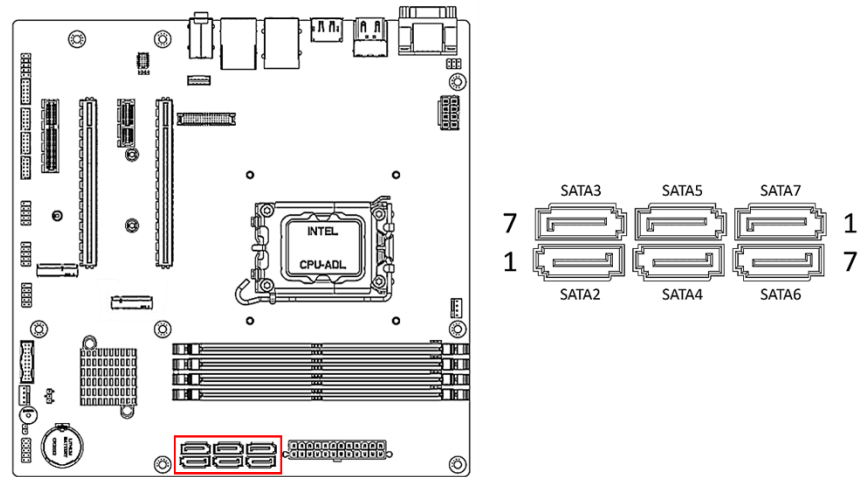
2.4.11 24-Pin ATX Main Power Connector (ATX)



Pin	Function	Pin	Function
1	3.3V	13	3.3V
2	3.3V	14	-12V
3	GND	15	GND
4	+5V	16	PS_ON
5	GND	17	GND
6	+5V	18	GND
7	GND	19	GND
8	Power Good	20	-5V
9	5VSB	21	+5V
10	+12V	22	+5V
11	+12V	23	+5V
12	3.3V	24	GND

Connector PN	Vendor
740-96-245B70	PINREX
Connector Type	
2x12pin header, pitch 4.2mm	

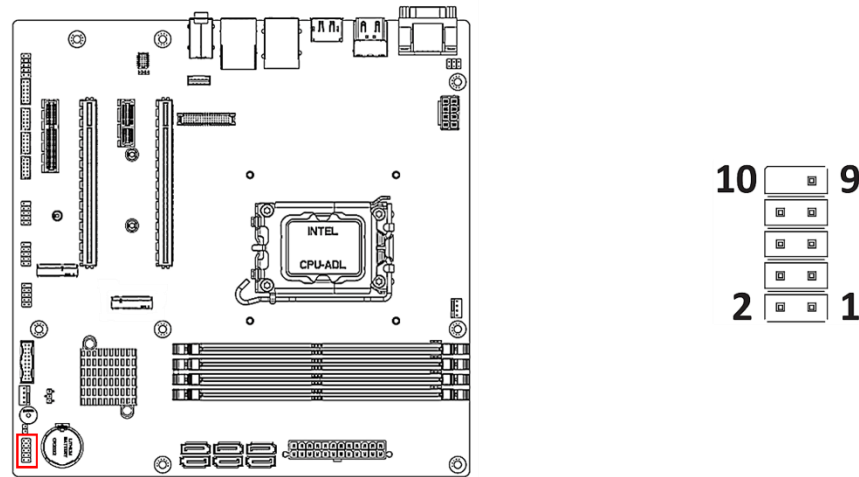
2.4.12 SATA 6Gb/s Connector x 6 (SATA2 ~ SATA7)



Pin	Function
1	GND
2	TXp
3	TXn
4	GND
5	RXn
6	RXp
7	GND

Connector PN	Vendor
WATM-07ABNB2BAUW3	WINWIN
770-83-07SW19	PINREX

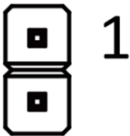
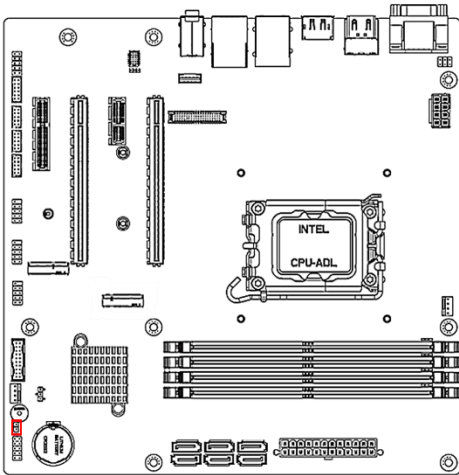
2.4.13 Front Panel Header (F_PANEL)



Pin	Function
1	HDD LED+
2	Power LED+
3	HDD LED-
4	Power LED-
5	GND
6	Power button+
7	Reset button
8	Power button-
9	No connect
10	No pin

Connector PN	Vendor
210-92-05GW5W	PINREX
Connector Type	
2x5pin header, pitch 2.54mm	

2.4.14 Chassis Open Intrusion Alert Header (CASE_OPEN)

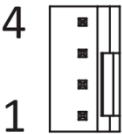
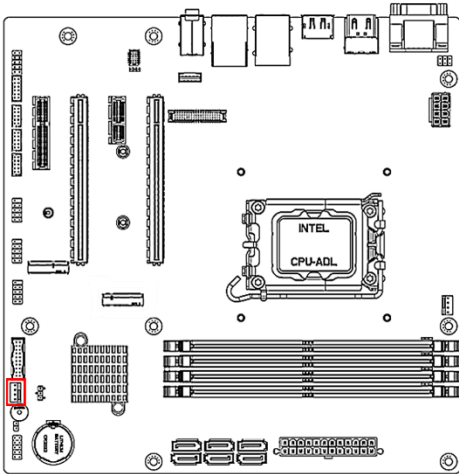


Pin	Function
1	Detect
2	GND

Connector PN	Vendor
210-91-02GBK2	PINREX
PH02R23BAZE11	HORNGTONG

Connector Type
1x2pin header, pitch 2.54mm

2.4.15 System Fan Connector (SYS_FAN)

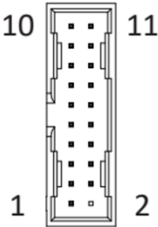
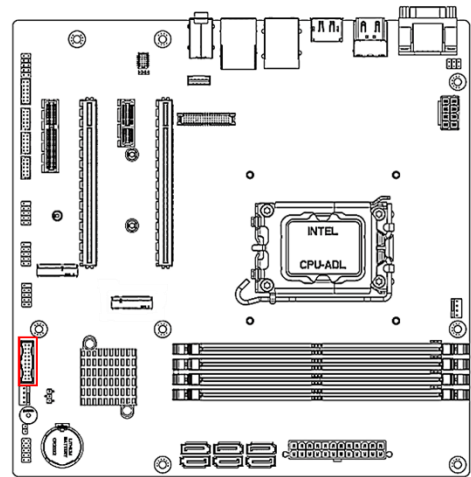


Pin	Function
1	GND
2	12V
3	Detect
4	Speed Control

Connector PN	Vendor
744-81-045R11	PINREX

Connector Type
1x4pin header, pitch 2.54mm

2.4.16 USB 3.2 Gen 1 Header (FUSB30)



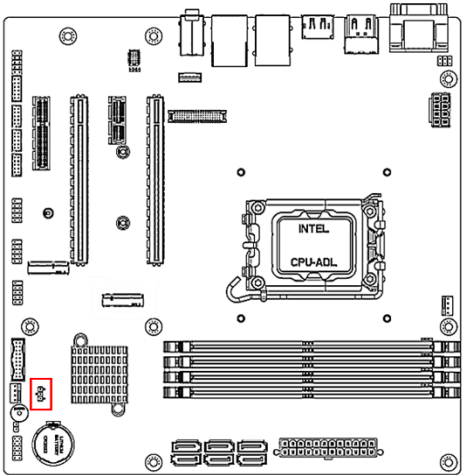
Pin	Function
1	5V
2	RX1n
3	RX1p
4	GND
5	TX1n
6	TX1p
7	GND
8	D1n
9	D1p
10	OC
11	D2p
12	D2n
13	GND
14	TX2p
15	TX2n
16	GND
17	RX2p
18	RX2n

Pin	Function
19	5V
20	NC

Connector PN	Vendor
52X-80-20GU65	PINREX
WUIR-19A9N4BU3W	WINWIN

Connector Type
2x10pin header, pitch 2.0mm

2.4.17 Clear CMOS Jumper (CLR_CMOS)



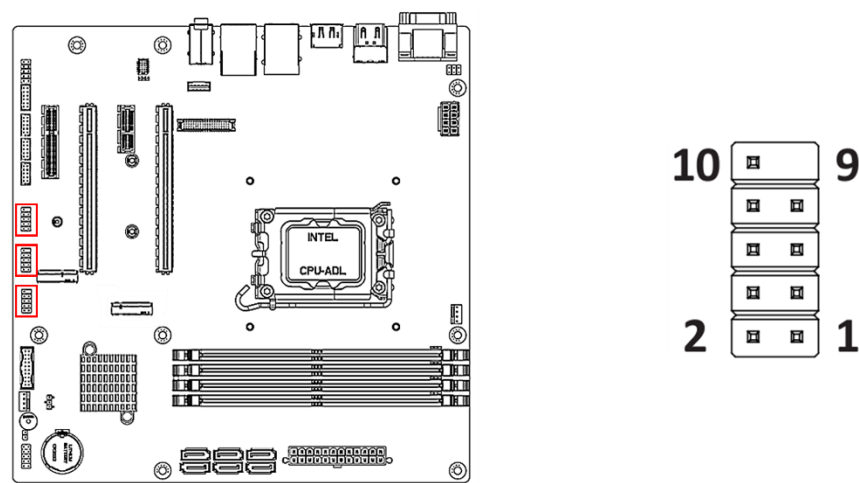
Pin	Function
1	NC
2	GND
3	Clear CMOS

1-2 Close:
Normal Operation (Default setting)

2-3 Close:
Clear CMOS data

Connector PN	Vendor
212-91-03GBE00K	PINREX
LCH24-K0324S21C-00	LIONCONN
Connector Type	
1x3pin header, pitch 2.54mm	

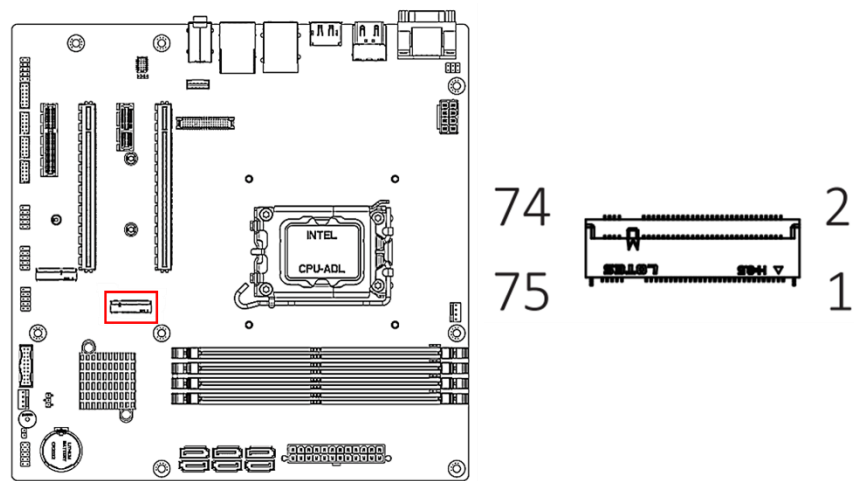
2.4.18 USB 2.0 Header (FUSB2_1 ~ FUSB2_3)



Pin	Function
1	5V
2	5V
3	D2n
4	D1n
5	D2p
6	D1p
7	GND
8	GND
9	No Pin
10	No Connect

Connector PN	Vendor
210-92-05GB04	PINREX
PH10R53BAZ009	HORNGTONG
Connector Type	
2x5pin header, pitch 2.54mm	

2.4.19 M.2 2242/2280 M-Key (M2M)

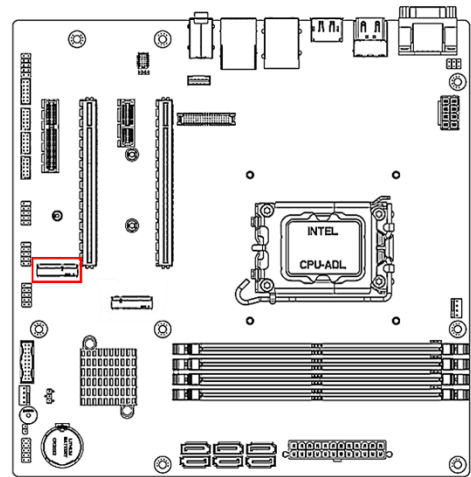


Pin	Function	Pin	Function
1	GND	2	3.3V
3	GND	4	3.3V
5	PCIE3 RXn	6	NC
7	PCIE3 RXp	8	NC
9	GND	10	SSD LED
11	PCIE3 TXn	12	3.3V
13	PCIE3 TXp	14	3.3V
15	GND	16	3.3V
17	PCIE2 RXn	18	3.3V
19	PCIE2 RXp	20	NC
21	GND	22	NC
23	PCIE2 TXn	24	NC
25	PCIE2 TXp	26	NC
27	GND	28	NC
29	PCIE1 RXn	30	NC

Pin	Function	Pin	Function
31	PCIE1 RXp	32	NC
33	GND	34	NC
35	PCIE1 TXn	36	NC
37	PCIE1 TXp	38	NC
39	GND	40	NC
41	SATA0/PCIE0 RXp	42	NC
43	SATA0/PCIE0 RXn	44	NC
45	GND	46	NC
47	SATA0/PCIE0 TXn	48	NC
49	SATA0/PCIE0 TXp	50	Reset
51	GND	52	Clock Request
53	Clockn	54	Wakeup
55	Clockp	56	NC
57	GND	58	NC
67	NC	68	SUSCLK
69	Detect	70	3.3V
71	GND	72	3.3V
73	GND	74	3.3V
75	GND		

Connector PN	Vendor
80159-8521	BELLWETHER
APCI0096-P002A	LOTES

2.4.20 M.2 2230 E-Key (M2E)

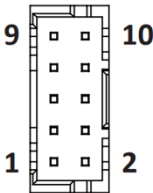
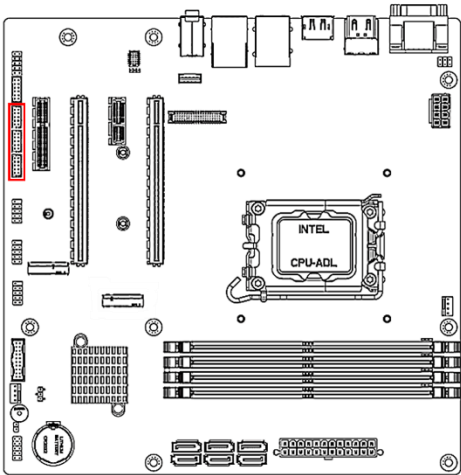


Pin	Function	Pin	Function
1	GND	2	3.3V
3	D1p	4	3.3V
5	D1n	6	NC
7	GND	8	NC
9	NC	10	NC
11	NC	12	NC
13	GND	14	NC
15	NC	16	NC
17	NC	18	GND
19	GND	20	NC
21	NC	22	NC
23	NC	24	
25	GND	26	NC
27	PCIE_TXp	28	NC
29	PCIE_TXn	30	NC
31	GND	32	CL_Reset
33	PCIE_RXp	34	CL_DATA
35	PCIE_RXn	36	CL_Clock
37	GND	38	NC
39	PCIE_CLOCKp	40	NC
41	PCIE_CLOCKn	42	NC
43	GND	44	SUSCLK

Pin	Function	Pin	Function
45	PCIe Clock Request	46	Reset
47	PCIe wake up	48	BT_Disable
49	GND	50	WLAN_Disable
51	NC	52	NC
53	NC	54	NC
55	GND	56	NC
57	NC	58	NC
67	NC	68	NC
69	GND	70	NC
71	NC	72	NC
73	NC	74	3.3V
75	GND		3.3V

Connector PN	Vendor
2E0BC21-S85BE-7H	FOXCONN
80152-8521	BELLWETHER
APCI0095-P002A	LOTES

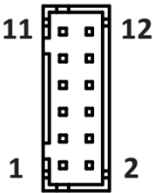
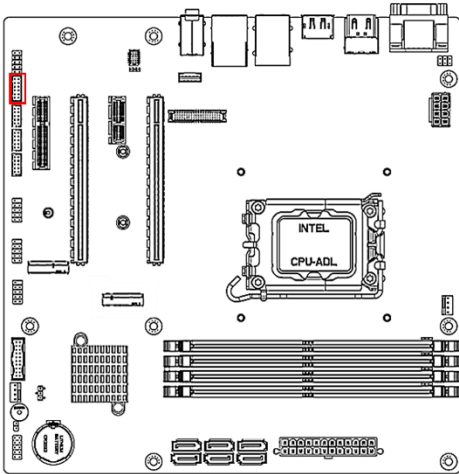
2.4.21 Serial Port Header (RS-232) (COM2 ~ COM4)



Pin	Function
1	RXD

Pin	Function
2	DCD
3	DTR
4	TXD
5	DSR
6	GND
7	CTS
8	RTS
9	No Connect
10	RI

2.4.22 GPIO Header (GPIO_CNT)



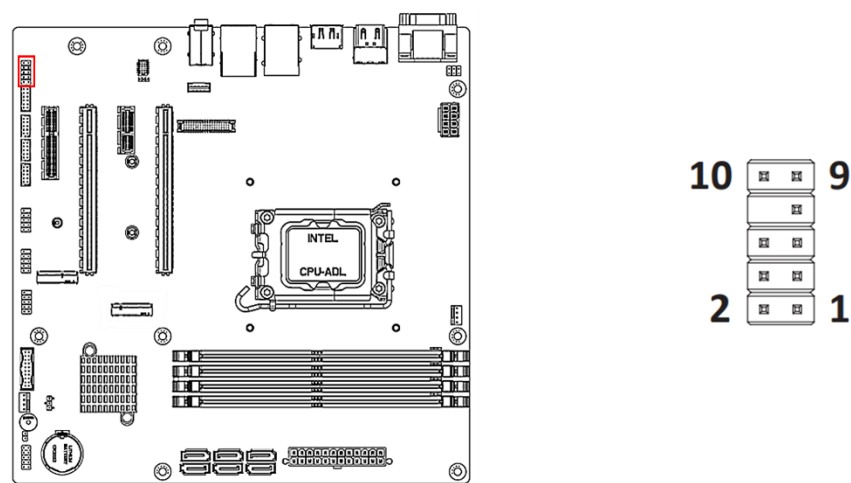
Pin	Function
1	GPIO-output_1
2	GPIO-input_1
3	GPIO-output_2
4	GPIO-input_2
5	GPIO-output_3
6	GPIO-input_3
7	GPIO-output_4
8	GPIO-input_4
9	SMBus Clock
10	SMBus DATA

Pin	Function
11	5V
12	GND

Connector PN	Vendor
725-81-12TW00	PINREX
A2004WV-2X06P46	JOINT-TECH

Connector Type
2x6pin header, pitch 2.0mm

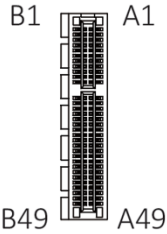
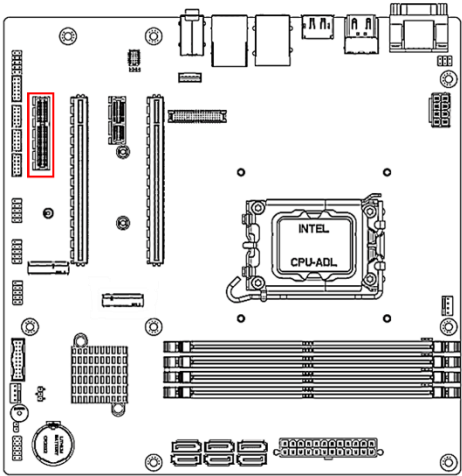
2.4.23 Front Panel Audio Header (F_AUDIO)



Pin	Function
1	MIC_LEFT
2	GND
3	MIC_RIGHT
4	Detect
5	LINE_RIGHT
6	GND
7	JACKSENSE Detect
8	No connect
9	LINE_LEFT
10	GND

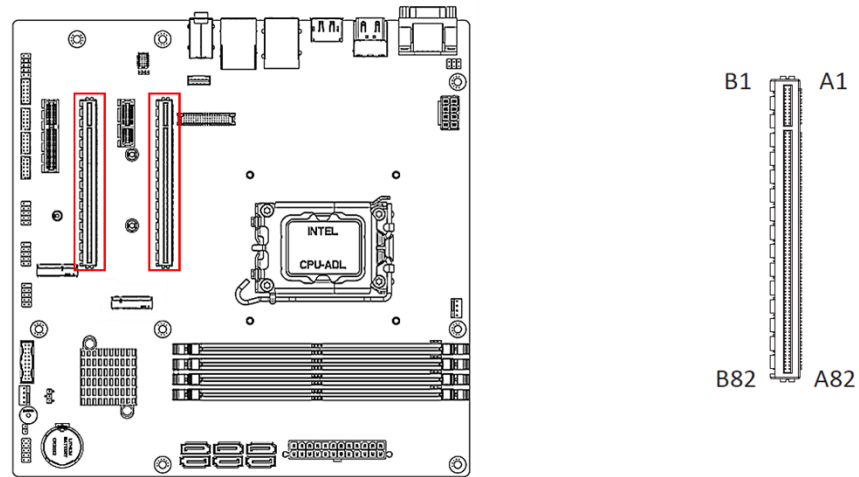
Connector PN	Vendor
210-92-05GE05	PINREX
Connector Type	
2x5pin header, pitch 2.54mm	

2.4.24 PCIe Gen 3 [x4] Slot (PCIEX4)



Connector PN	Vendor
064AN41B22UWS	WINWIN
2EG03211-D2D-DF	FOXCONN

2.4.25 PCIe Gen 4 [x16] x 2 (PCIEX16_A, PCIEX16_B)

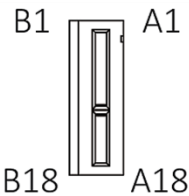
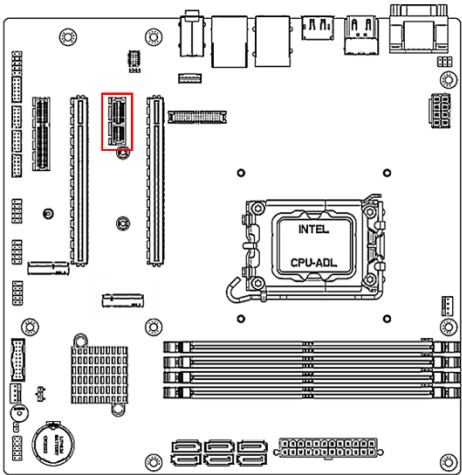


Connector PN	Vendor
10144667-123Z0LF	FCI

Possible Configurations:

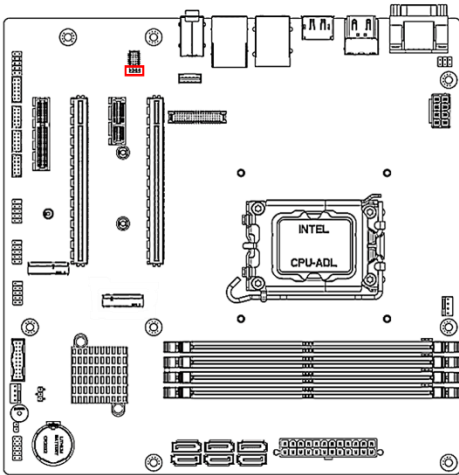
Code Name	PCIEX16_A	PCIEX16_B
Config. 1	Signal at x16	0
Config. 2	Signal at x8	Signal at x8

2.4.26 PCIe Gen 3 [x1] (PCIEX1)



Connector PN	Vendor
WPES-036AN41B22UWS	WINWIN
2EG01811-D7D-DF	FOXCONN

2.4.27 AT/ATX Mode Select Jumper (AT_CN)



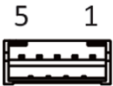
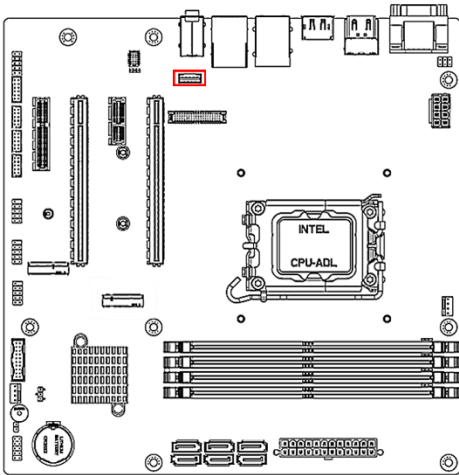
Pin	Function
1	AT MODE
2	Detect
3	ATX MODE

Jumper setting

1-2 Close: AT mode.

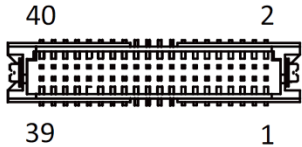
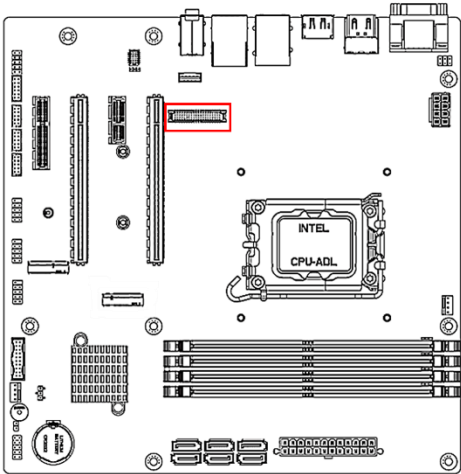
2-3 Close: ATX mode. (Default setting)

2.4.28 Backlight Control Header (BKL_CN)



Pin	Function
1	5V (option 12V)
2	PWM
3	Backlight Enable
4	GND
5	12V
Connector PN	Vendor
721-81-05TW00	PINREX
A2001WV-05P146	JOINT-TECH
Connector Type	
1x5pin header, pitch 2.0mm	

2.4.29 LVDS Connector (LVDS)



Pin	Function	Pin	Function
1	3.3V	2	5V
3	3.3V	4	5V
5	SPEC0	6	SPED0
7	GND	8	GND
9	A1+	10	A0+
11	A1-	12	A0-
13	GND	14	GND
15	A3+	16	A2+
17	A3-	18	A2-
19	GND	20	GND
21	A5+	22	A4+
23	A5-	24	A4-
25	GND	26	GND
27	A7+	28	A6+
29	A7-	30	A6-
31	GND	32	GND
33	CLK2+	34	CLK1+
35	CLK2-	36	CLK1-
37	GND	38	GND
39	12V	40	12V

Connector PN	Vendor
712-76-40GWE0	PINREX
A1252WV-SF-2X20PD01	JOINT-TECH
Connector Type	
2x20pin header, pitch 1.25mm	

Note: All models support the LVDS function. However, the models listed below do not require LVDS configuration.

Channels A0–A3 correspond to odd channels 0–3.

Channels A4–A7 correspond to even channels 0–3.

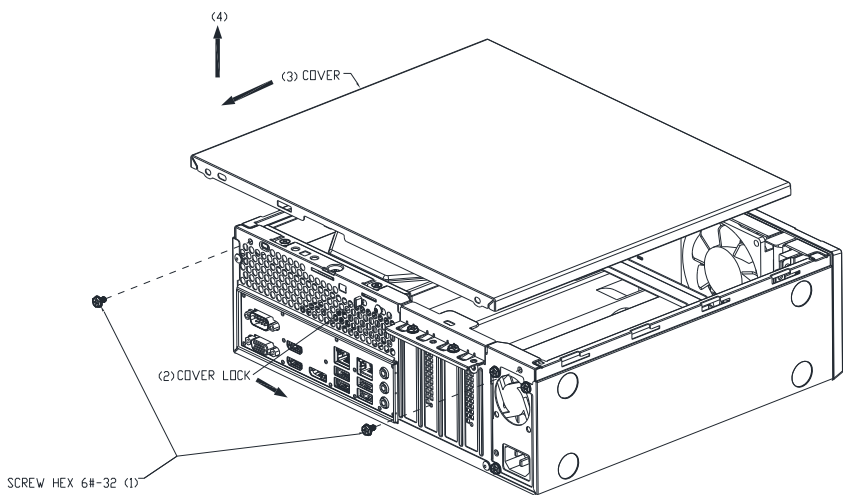
Note: The LVDS output connector is intended only for connection to equipment that is UL/IEC/EN certified and housed within a fire enclosure.

2.5 Hardware Assembly

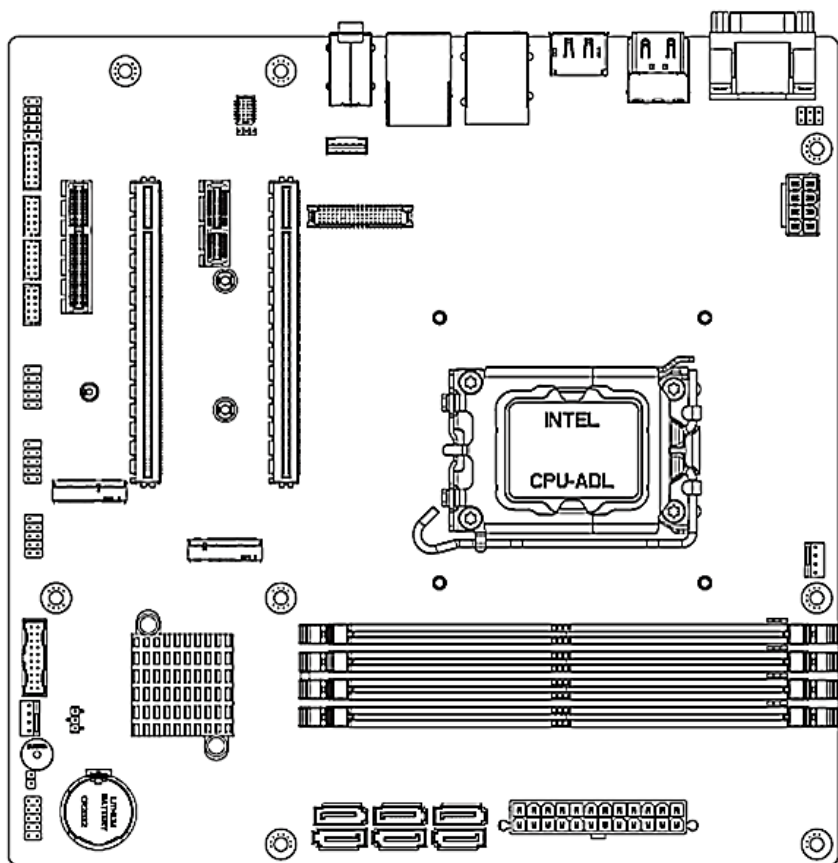
This section details the steps needed to install various hardware components for the MAXER-5100.

2.5.1 Accessing the System

To access the system's interior, please remove the case cover using the method outlined below.



System Interior Diagram:

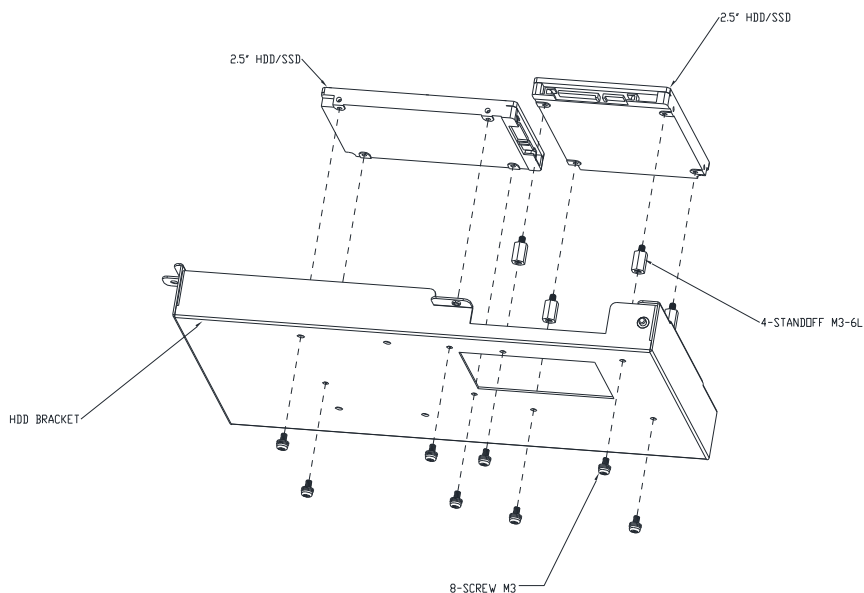


2.5.2 2.5" and 3.5" HDD/SSD Installation

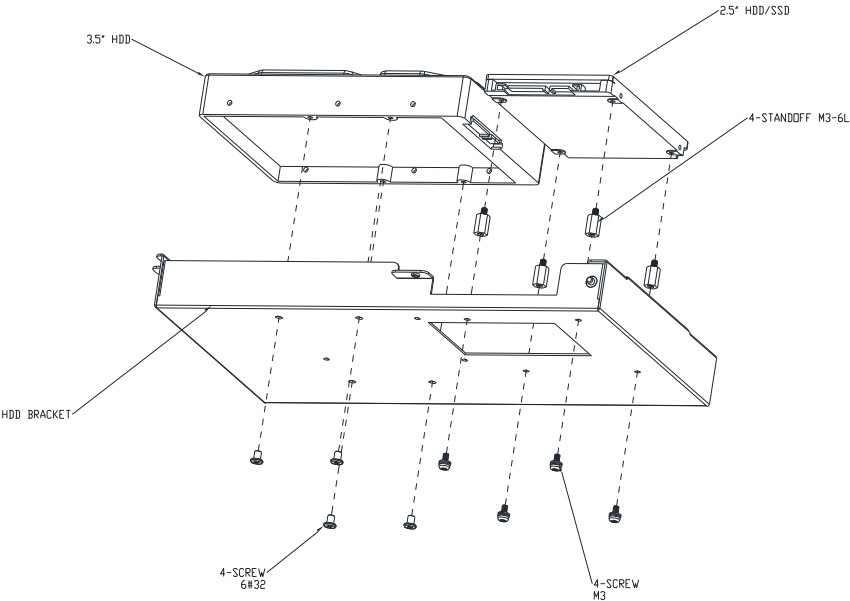
For SATA connector location, please see section 2.4.12.

The system's 2.5" and 3.5" HDD or SSD drive bays can be assembled per the configurations shown in the following diagrams:

2.5" SATA Drive Assembly



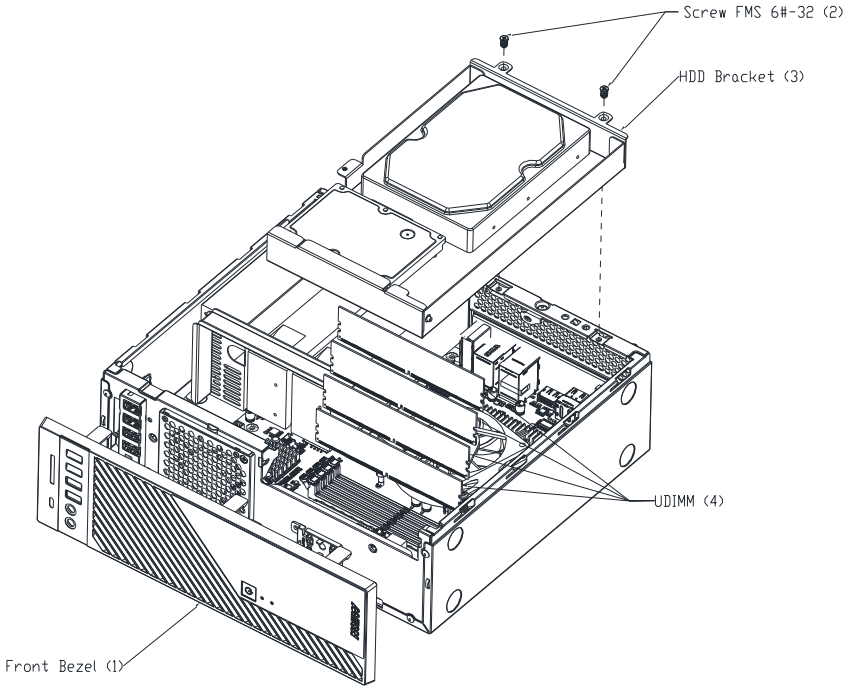
3.5" SATA Drive Assembly



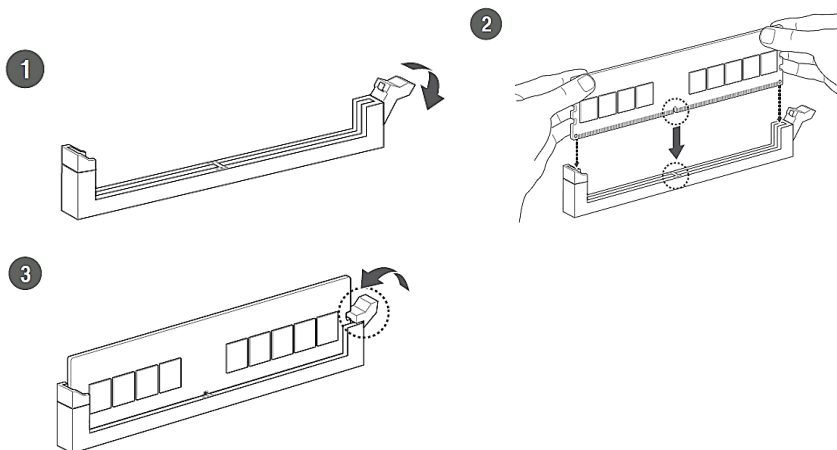
2.5.3 U-DIMM Installation

For U-DIMM slot location, please see section 2.4.10.

Please see the diagram below for reference when installing U-DIMM modules:

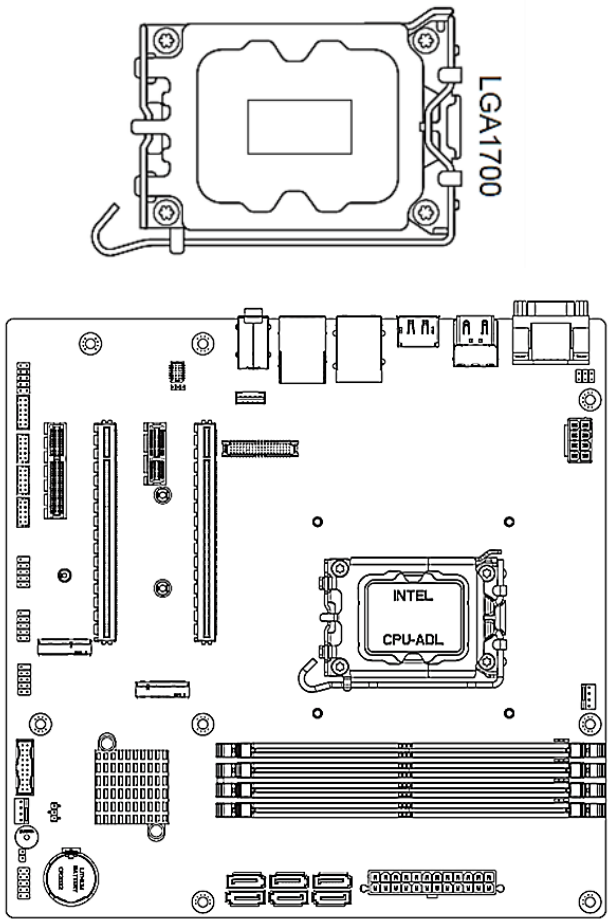


Follow standard U-DIMM installation process, as shown below.

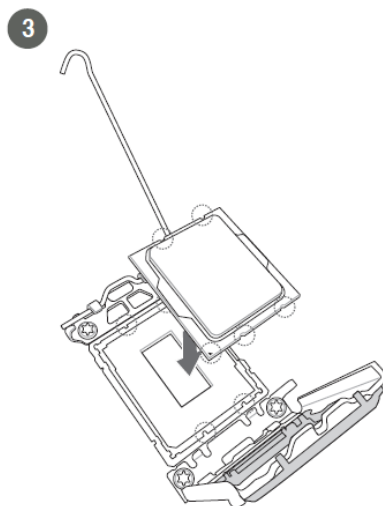
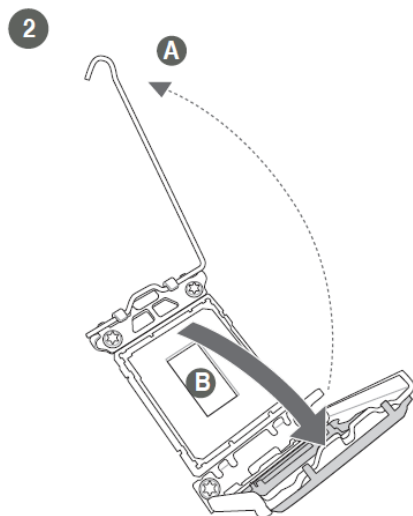
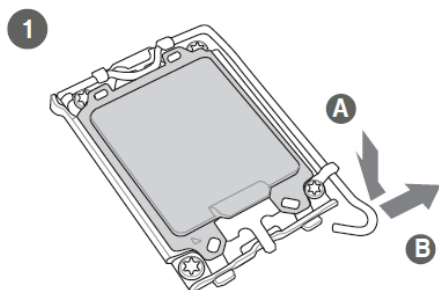
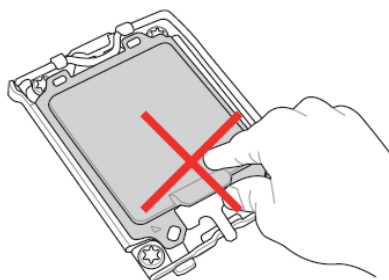


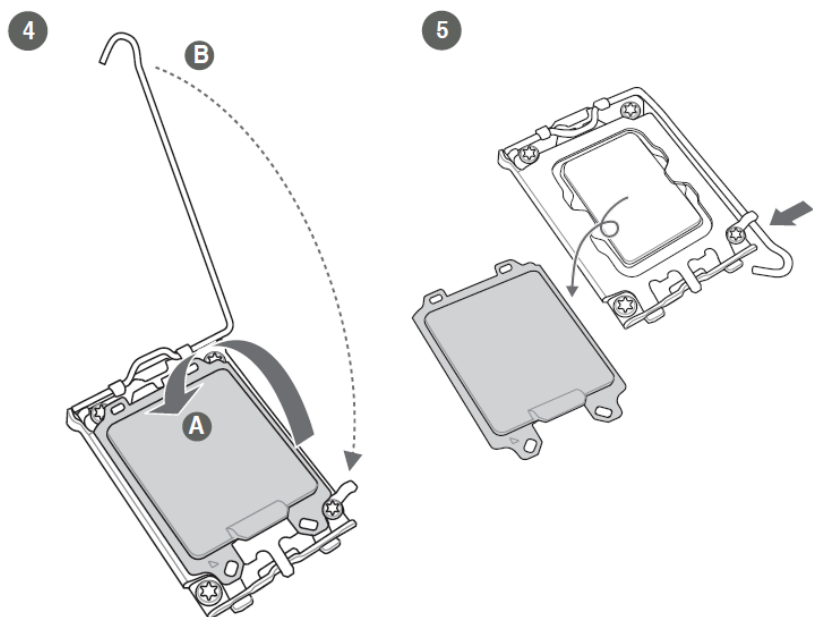
2.5.4 CPU Installation

The MAXER-5100 is compatible with 12th, 13th, and 14th Generation Intel® Core™ Processors. Please ensure that only CPUs designed for the LGA 1700 socket are installed. Do not install a CPU designed for LGA 1155, LGA 1156, LGA 1151, or LGA 1200 sockets on the system's LGA 1700 socket. If there is any doubt as to the compatibility of your selected CPU, please contact your AAEON representative.



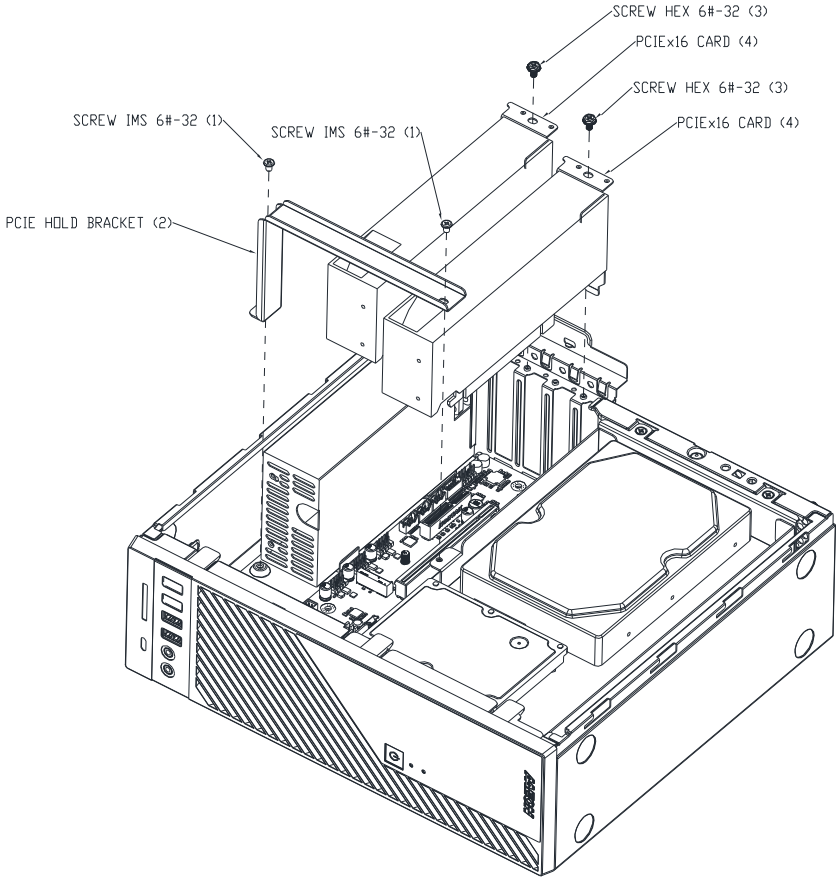
For CPU installation, follow the below steps.





2.5.5 PCIe Installation

For PCIe slot locations, please see sections 2.4.24, 2.4.25, 2.4.26.



Chapter 3

Drivers Installation

3.1 Drivers Download and Installation

Drivers for the MAXER-5100 can be downloaded from the product page on the AAEON website by following this link:

<https://www.aaeon.com/en/product/detail/edge-ai-server-maxer-5100/download>