QBiP-2718A

3.5” SBC Boards- QBiP-2718A
User’s Manual 1st Ed

Copyright Notice

Acknowledgement

Packing List

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

Item	Quantity
QBiP-2718A	1
SATA power cable	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 GIGAIPC.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. Make sure the power source matches the power rating of the device.
3. Position the power cord so that people cannot step on it. Do not place anything over the power cord.
4. Always completely disconnect the power before working on the system's hardware.
5. No connections should be made when the system is powered as a sudden rush of power may damage sensitive electronic components.
6. 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.
7. Always disconnect this device from any AC supply before cleaning.
8. While cleaning, use a damp cloth instead of liquid or spray detergents.
9. Make sure the device is installed near a power outlet and is easily accessible.
10. Keep this device away from humidity.
11. Place the device on a solid surface during installation to prevent falls
12. Do not cover the openings on the device to ensure optimal heat dissipation.

13. Watch out for high temperatures when the system is running.

14. Do not touch the heat sink or heat spreader when the system is running

15. Never pour any liquid into the openings. This could cause fire or electric shock.

16. 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.

17. 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

18. 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

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
GIGAIPC Main Board/ Daughter Board/ Backplane

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	O	O	O	O	O	O
外部信号连接器及线材	O	O	O	O	O	O

O: 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SJ/T 11363-2006 标准规定的限量要求以下。
X: 表示该有毒有害物质至少在该部件的某一均质材料中的含量超出SJ/T 11363-2006 标准规定的限量要求。
备注: 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。

China RoHS Requirement (EN)

Poisonous or Hazardous Substances or Elements in Products
GIGAIPC Main Board/ Daughter Board/ Backplane

Component	Poisonous or Hazardous Substances or Elements					
	Lead (Pb)	Mercury (Hg)	Cadmium (Cd)	Hexavalent Chromium (Cr(VI))	Polybrominated Biphenyls (PBB)	Polybrominated Diphenyl Ethers (PBDE)
PCB & Other Components	O	O	O	O	O	○
Wires & Connectors for External Connections	O	O	O	O	O	O

O : The quantity of poisonous or hazardous substances or elements found in each of the component's parts is below the SJ/T 11363-2006-stipulated requirement.
X: The quantity of poisonous or hazardous substances or elements found in at least one of the component's parts is beyond the SJ/T 11363-2006-stipulated requirement.
Note: The Environment Friendly Use Period as labeled on this product is applicable under normal usage only

GIGAIPC

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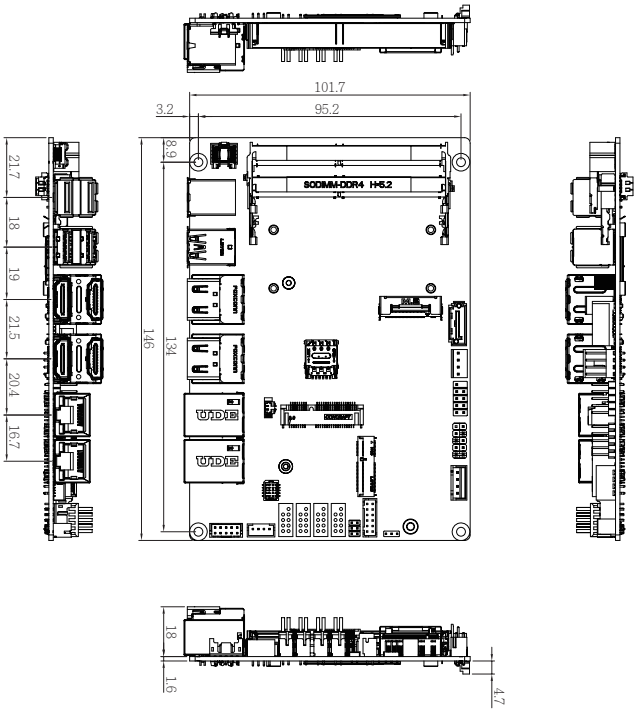
Chapter 1

Chapter1 - Product Specifications
QBiP-2718A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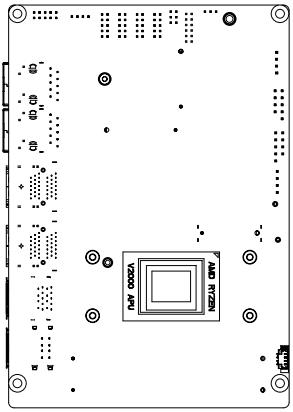
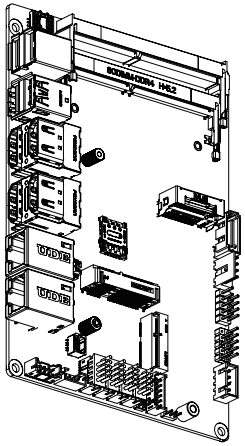

AMD RYZEN
V3000 Jun


SODIMM-DDR4 H=5.2

1.1 Specifications- QBiP-2718A

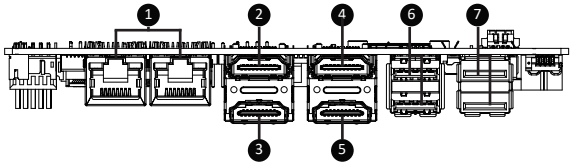
Motherboard	QBiP-2718A (MRZV2MS)
Form Factor	3.5'' SBC 146W x 101.7D mm
CPU	AMD Ryzen™ V2718 Embedded Processor 7nm, 8 cores, 16 threads, 1.7 GHz, up to 4.15 GHz TDP 25W
Package	FP6 Type 1
Chipset	SoC
Memory	2 x DDR4 SO-DIMM sockets, Max. Capacity 32 GB Support Dual channel DDR4 3200 MHz memory modules
Ethernet	2 x GbE LAN Ports (Realtek® RTL8118-CG)
Video	Integrated Graphics Processor - AMD Radeon(TM) Graphics 4 x HDMI 2.1 port, supporting a maximum resolution of 4096x2160 @144Hz (4 independent display outputs)
Audio	Realtek® Audio Codec
Storage	1 x SATA 6Gb/s Port
Raid	—
Expansion Slots	1 x 2280 M.2 M-Key (PCIe x4, SATA 6Gb/s) 1 x 2230 M.2 E-Key 1 x Full-size Mini PCIe with SIM slot (PCIe x1 + USB2.0) -- support 3G/4G module
Internal I/O	1 x 4-pin box power connector (DC in +9V~48VDC) 1 x SATA Power header 1 x CPU fan header 1 x Front panel header 1 x Front panel audio header 1 x 2W Speaker out header 2 x USB 2.0 headers 3 x COM headers (RS-232/422/485) 1 x COM headers (RS-232/422/485 & RI/5V/12V) 1 x AT/ATX mode select jumper 1 x GPIO (8-bits) & SMBUS header

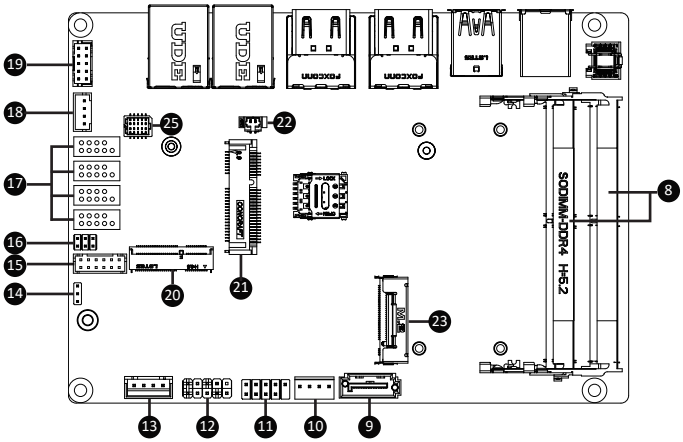
Motherboard	QBiP-2718A (MRZV2MS)
Rear I/O	4 x HDMI 2 x RJ45 LAN Ports 2 x USB 3.2 Gen 2x1 2 x USB 2.0
TPM	1 x TPM header (LPC)
OS Compatibility	Windows 10 (x64)
Operating Properties	Operating temperature: 0°C to 60°C Operating humidity: 0-90% (non-condensing) Non-operating temperature: -40°C to 85°C Non-operating humidity: 0%-95% (non-condensing)

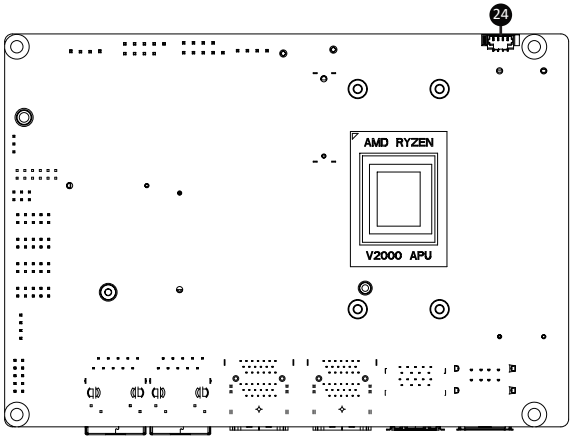
Chapter 2

Chapter 2 – Hardware Information

2.1 Jumpers and Connectors





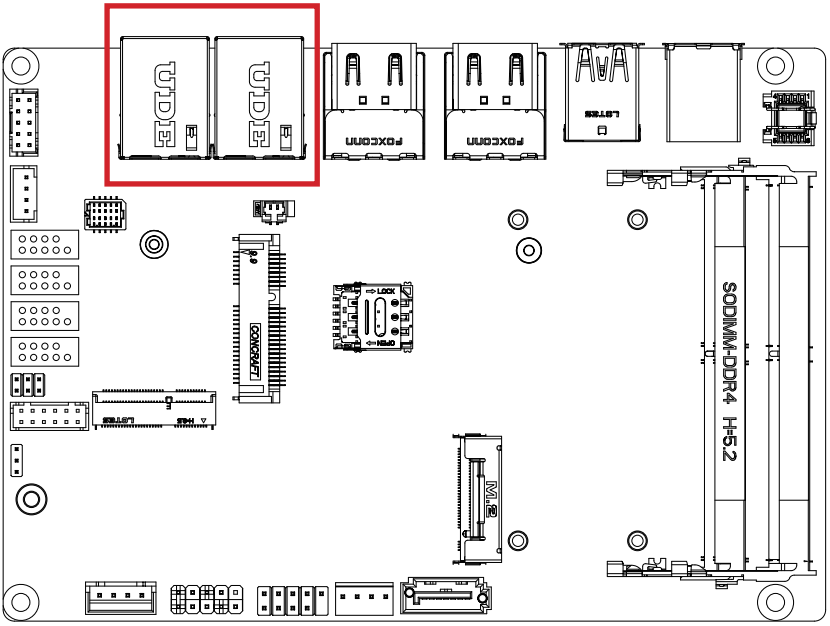


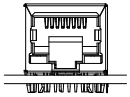
	Code	Description
1	LAN1, LAN2	LAN connectors
2	HDMI_43	HDMI 4 connector
3		HDMI 3 connector
4	HDMI_21	HDMI 2 connector
5		HDMI 1 connector
6	USB31	USB 3.2 Gen 2x1 connector
7	USB2	USB 2.0 connector
8	SODIMM1, SODIMM2	DDR4 SO-DIMM slot
9	SATA	SATA 6Gb/s connector
10	SATAPW	SATA power connector
11	FUSB	USB 2.0 header
12	SYS_PANEL	Front panel header
13	DC_IN	DC IN 1x4pin power connector
14	AT_CN	AT/ATX mode select jumper
15	GPIO_CNT	General Purpose input/output header
16	JCOM	RI pin RI/5V/12V Select jumper for COM4 port
17	COM1, COM2, COM3, COM4	Serial port header COM1, COM2 ,COM3 : RS-232/422/485 COM4 : RS-232/422/485 & RI/5V/12V
18	SPKR	Speaker out connector
19	FP_AUDIO	Front panel audio header
20	M2E	M.2 E-key, NGFF 2230
21	MPCIE	Mini PCIE slot

	Code	Description
22	BATTERY	Battery connector
23	M2M	M.2 M-key, NGFF 2280
24	CPU_FAN	CPU Fan connector
25	80H	LPC TPM header

2.2.1 LAN1, LAN2 (LAN Connector)

1



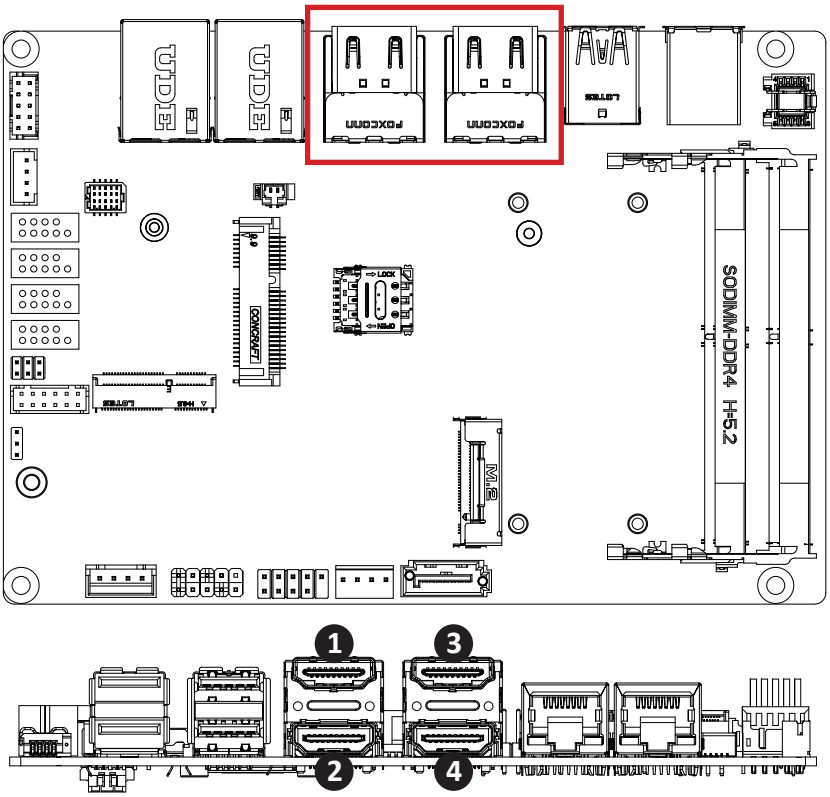
LAN connector


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

Pin No.	Definition	Pin No.	Definition
1	TX1+	4	TX3+
2	TX1-	5	TX3-
3	TX2+	7	TX4+
6	TX2-	8	TX4-

2.2.2 HDMI_43, HDMI_21 (HDMI Connector)

2 3 4 5

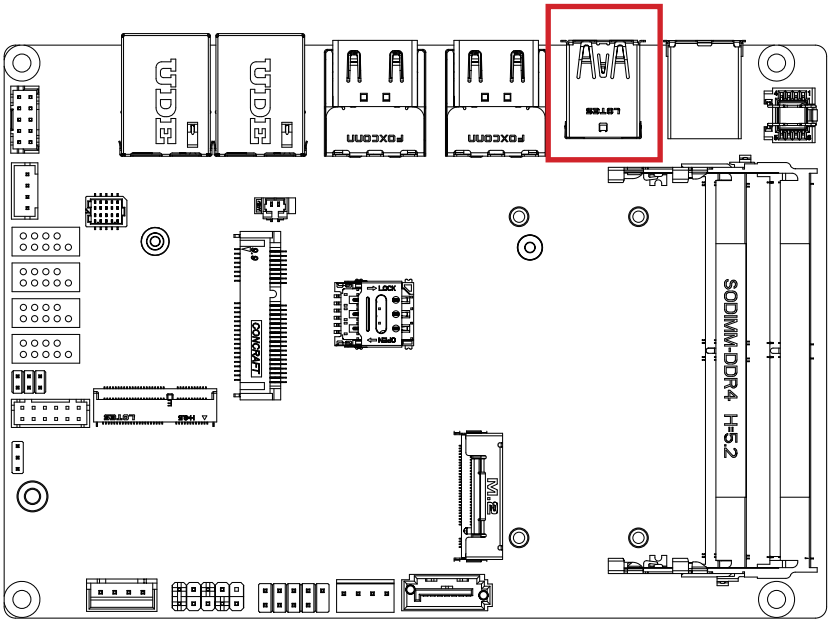


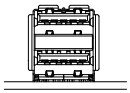
Pin No.	Definition	Pin No.	Definition
1	TX2p	20	TX2p
2	GND	21	GND
3	TX2n	22	TX2n
4	TX1p	23	TX1p
5	GND	24	GND
6	TX1n	25	TX1n
7	TX0p	26	TX0p
8	GND	27	GND
9	TX0n	28	TX0n
10	CLKp	29	CLKp
11	GND	30	GND

Pin No.	Definition	Pin No.	Definition
12	CLKn	31	CLKn
13	NC	32	NC
14	NA	33	NA
15	DDC Clock	34	DDC Clock
16	DDC Data	35	DDC Data
17	GND	36	GND
18	5V	37	5V
19	Hot Plug Detect	38	Hot Plug Detect

2.2.3 USB31 (USB 3.2 Gen 2x1 Connector)

6

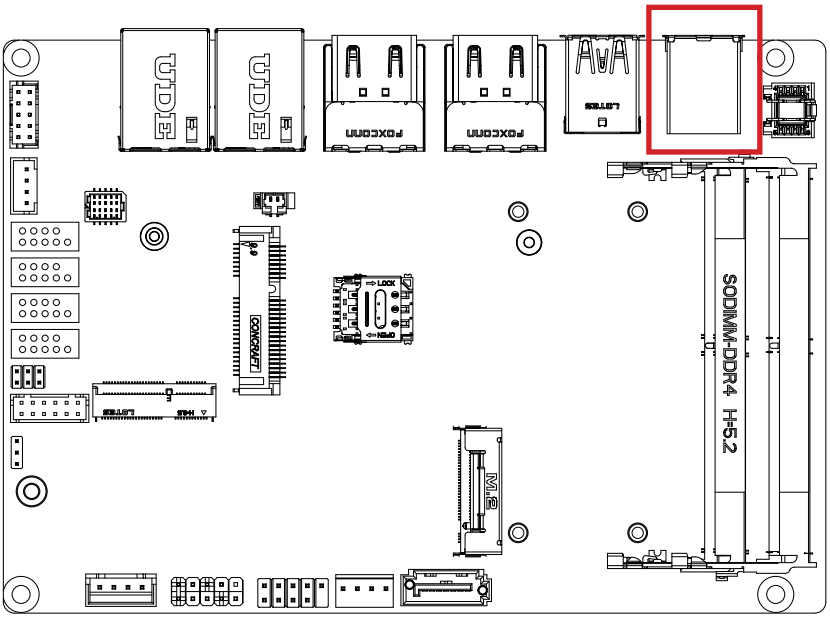


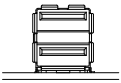
USB 3.2 Gen 2x1 connector


Pin No.	Definition	Pin No.	Definition
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

2.2.4 USB2 (USB 2.0 Connector)

❼

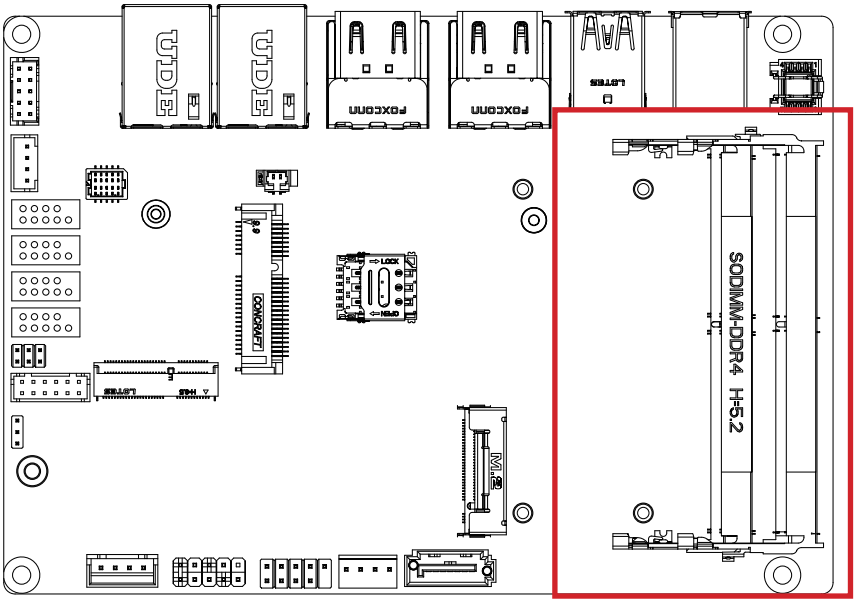


USB 2.0 connector


Pin No.	Definition
1	5V
2	5V
3	D1n
4	D0n
5	D1p
6	D0p
7	GND
8	GND

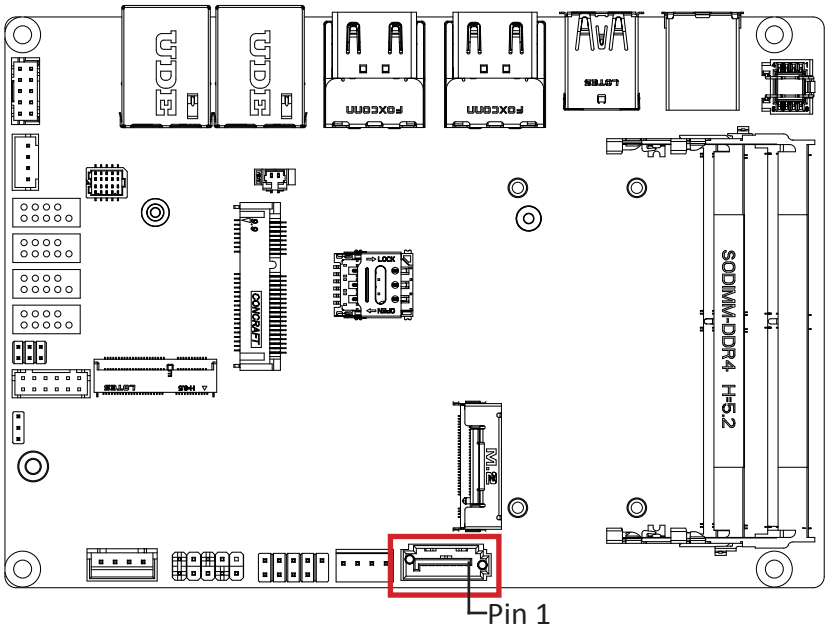
2.2.5 SODIMM1, SODIMM2 (DDR4 SO-DIMM slot)

8



2.2.6 SATA (SATA 6Gb/s connector)

9

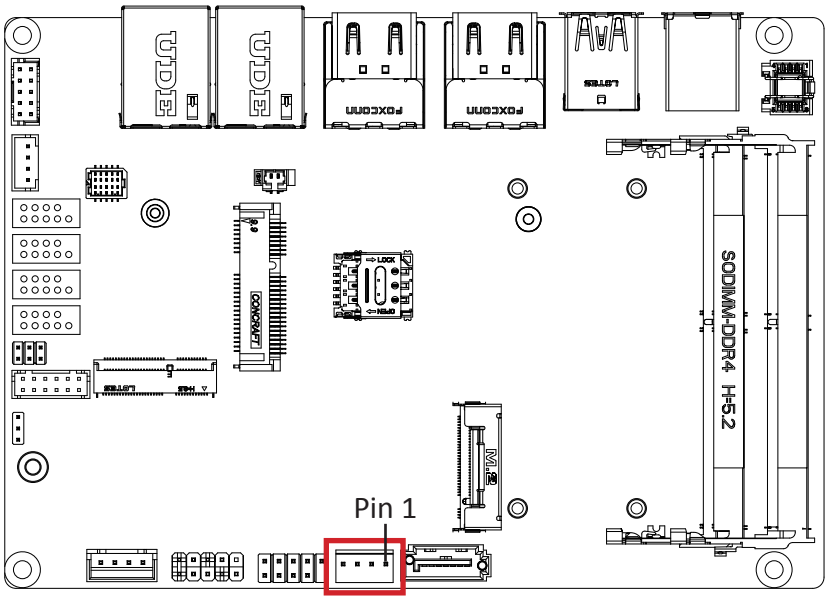


SATA 6Gb/s Connector
7 1

Pin No.	Definition
1	GND
2	TXp
3	TXn
4	GND
5	RXn
6	RXp
7	GND

2.2.7 SATAPW (SATA power connector)

10



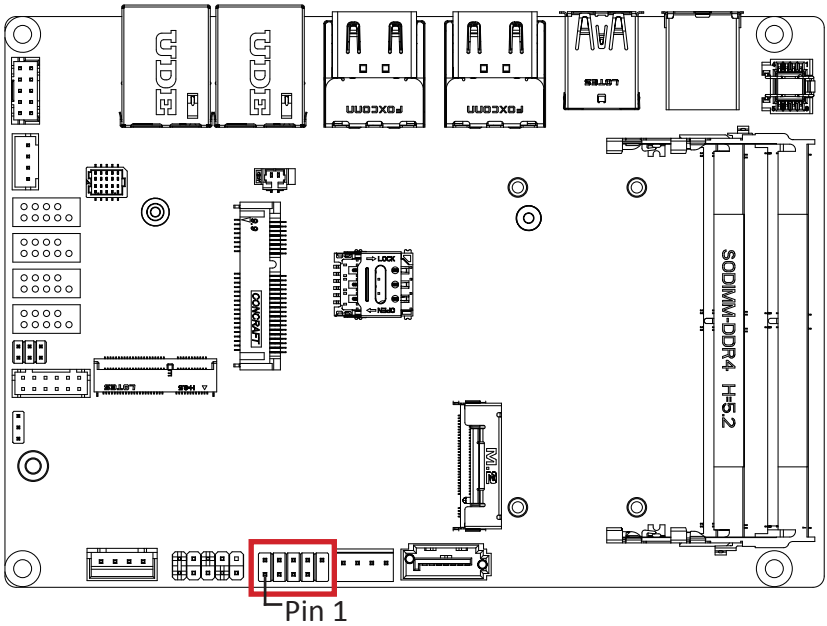
Hard Disk Power Connector
4 ■■■■ 1

Connector PN	Vendor
743-81-04TW00	PINREX
WF04Q2-3BJQ000	HORNGTONG

Pin No.	Definition
1	12V
2	GND
3	GND
4	5V

2.2.8 FUSB (USB 2.0 header)

11



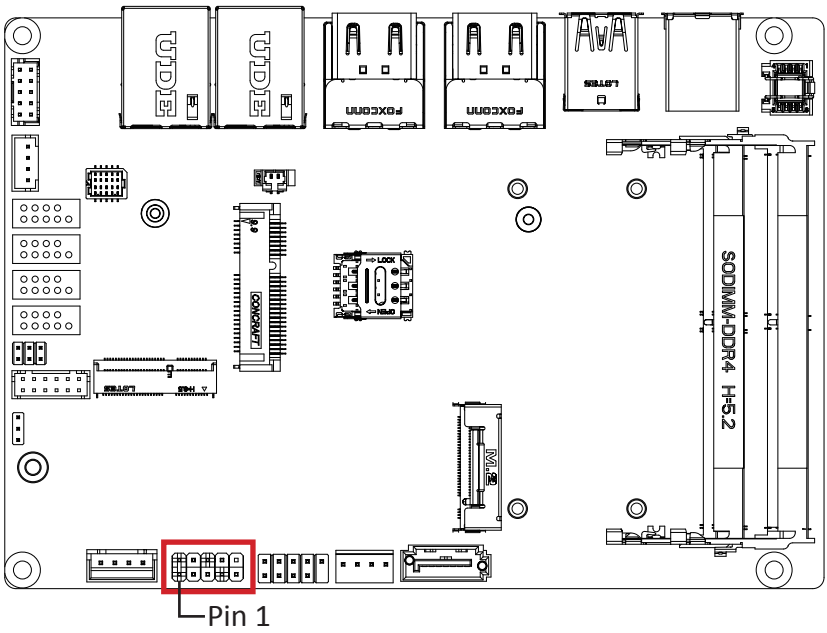
USB 2.0 header


Connector PN	Vendor
210-92-05GB04	PINREX
PH10R53BAZ009	HORNGTONG

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

2.2.9 SYS_PANEL (Front panel header)

12



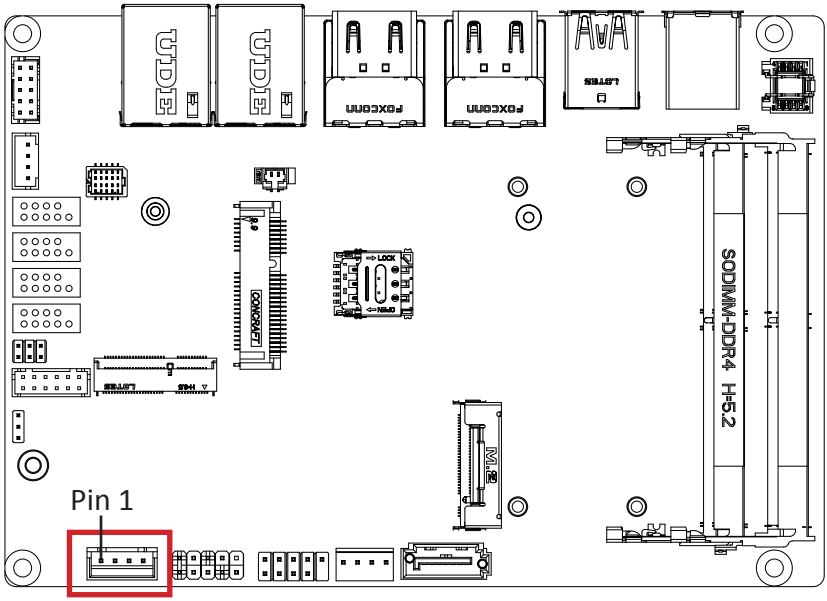
System Panel Header
2 1 10 9

Connector PN	Vendor
210-92-05GW5W	PINREX

Pin No.	Definition
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

2.2.10 DC IN (DC IN 1 x 4pin power connector)

13



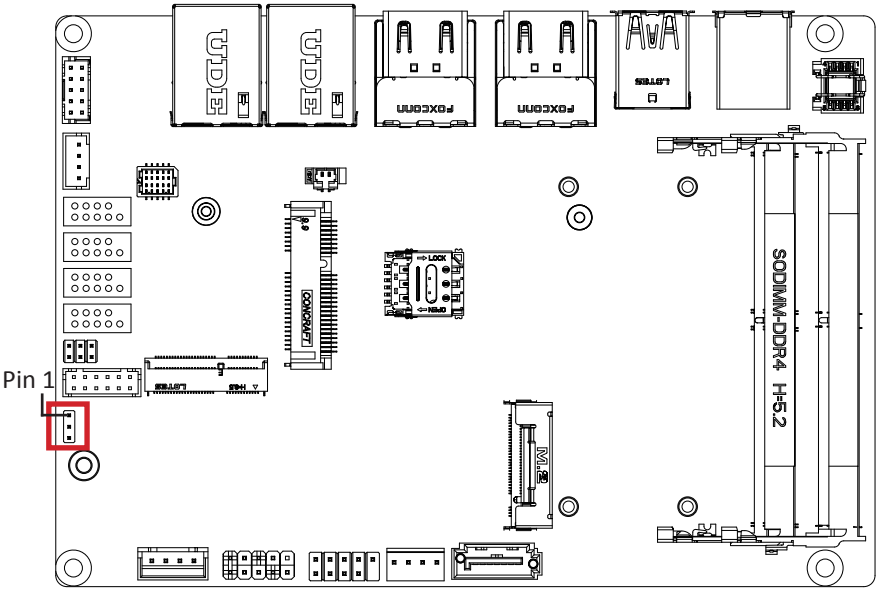
DC IN power connector
DC_IN 1 4

Connector PN	Vendor
753-81-04TW00	PINREX

Pin No.	Definition
1	GND
2	POWER IN
3	POWER IN
4	GND

2.2.11 AT_CN (AT/ATX mode select jumper)

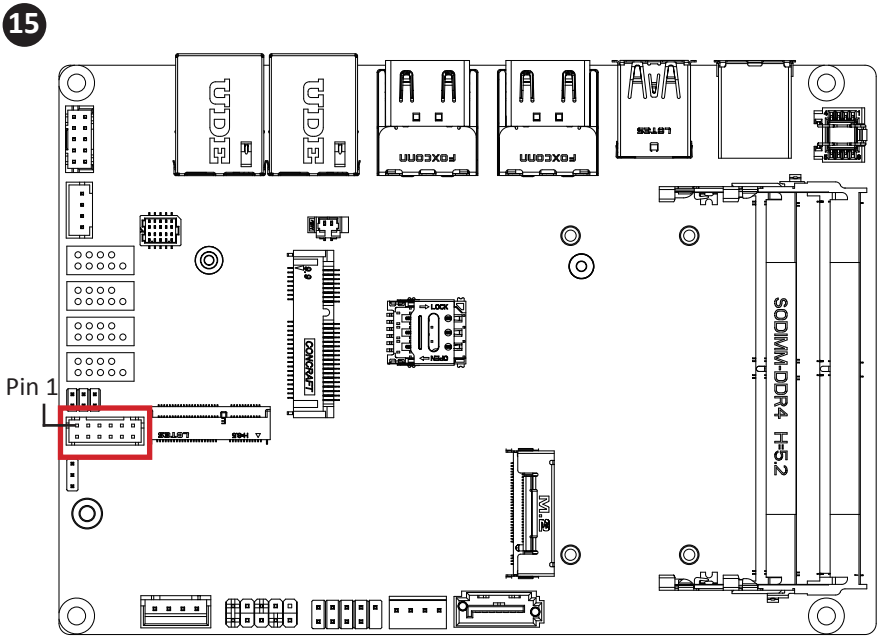
14



AT/ATX mode select jumper	
	1-2 Close : AT mode.
	2-3 Close : ATX mode. (Default setting)

Pin No.	Definition
1	AT mode
2	Detect
3	ATX mode

2.2.12 GPIO_CNT (General purpose input/output header)



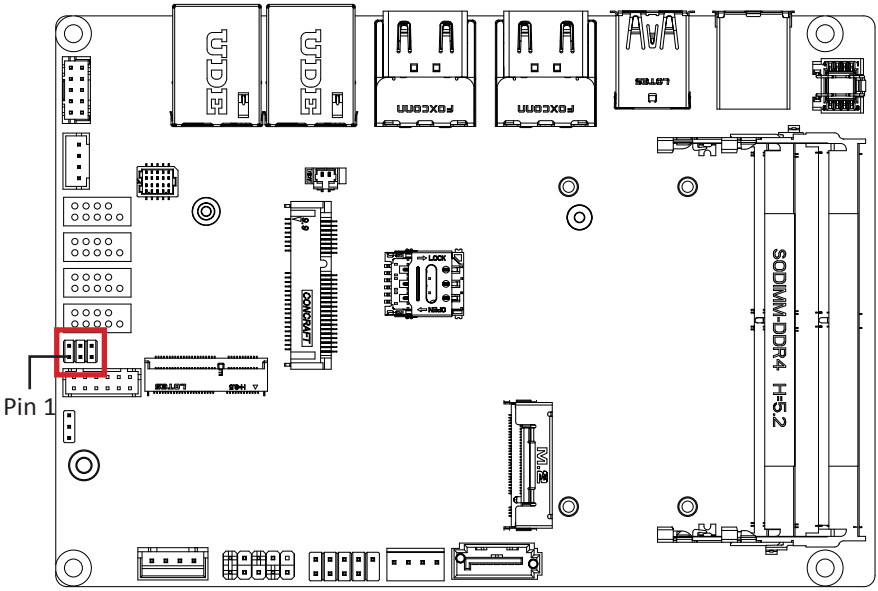
GPIO Connector


Pin No.	Definition
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
11	5V
12	GND

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

2.2.13 JCOM (RI pin RI/5V/12V Select jumper for COM4 port)

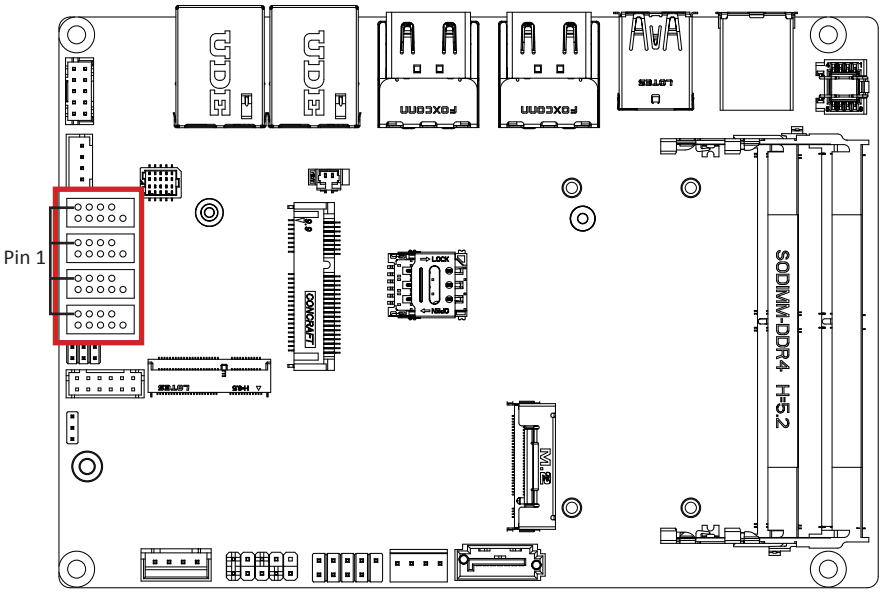
16



JCOM Jumper Select	
	1-2 Close: 5V (Power COM)
	3-4 Close: RI (Stand COM) Default
	5-6 Close: 12V (Power COM)

2.2.14 COM1, COM2, COM3, COM4 (Serial port header)

17



Serial Port Connector

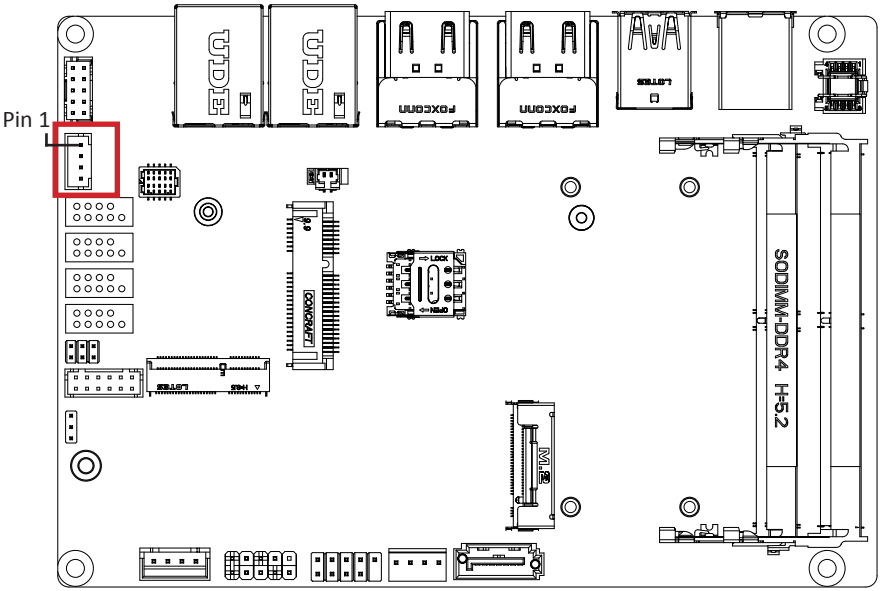

Connector PN	Vendor
725-81-10TW00	PINREX
A2004WV-2X05P46	JOINT-TECH

Pin No.	RS-232	RS-422 Full Duplex	RS-485 Half Duplex
1	RXD	TXD+	D+
2	DCD	TXD-	D-
3	DTR	RXD-	—
4	TXD	RXD+	—
5	DSR	—	—
6	GND	—	—
7	CTS	—	—
8	RTS	—	—
9	No Connect	—	—
10	RI/5V/12V	—	—

Note :
COM1, COM2, COM3 : Support RS-232/422/485
COM4 : Support RS-232/422/485 & RI/5V/12V
For RI/5V/12V jumper setting, please see P. 34

2.2.15 SPKR (Speaker out connector)

18

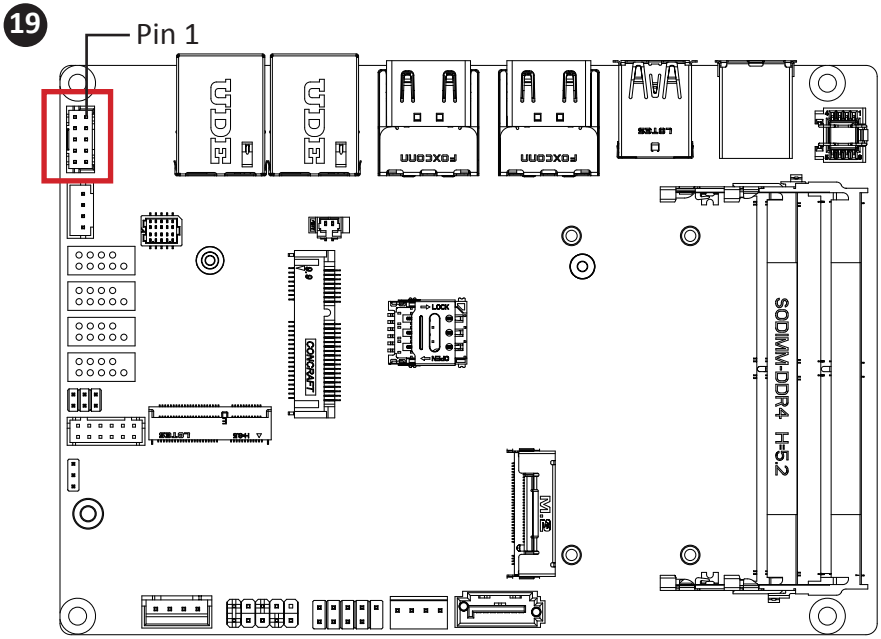


Speaker out connector


Connector PN	Vendor
721-81-045W00	PINREX
A2001WV-04P146	JOINT-TECH

Pin No.	Definition
1	Speaker Out L+
2	Speaker Out L-
3	Speaker Out R-
4	Speaker Out R+

2.2.16 FP_AUDIO (Front panel audio header)



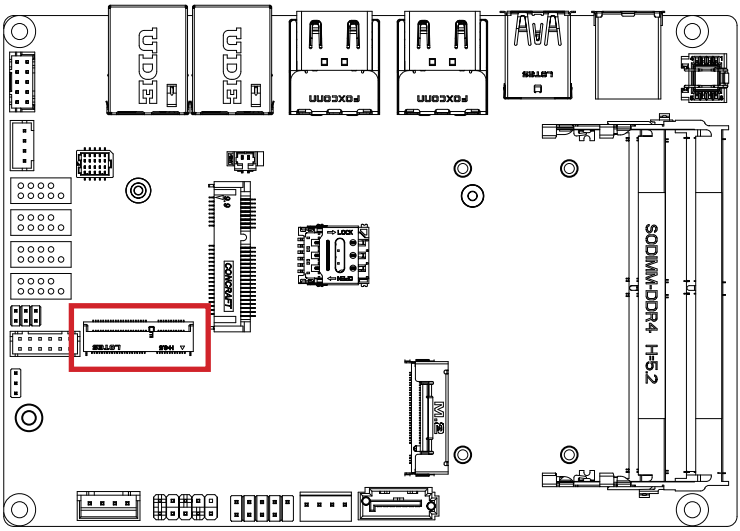
Front panel audio header
2 1 10 9

Connector PN	Vendor
725-81-10TW00	PINREX
A2004WV-2X05P46	JOINT-TECH

Pin No.	Definition	Pin No.	Definition
1	MIC-Left	2	GND
3	MIC-Right	4	Detect
5	HPOUT_ Right	6	MIC_JD
7	FAUDIO_JD	8	NC
9	HPOUT_Left	10	HPOUT_JD

2.2.17 M2E (M.2 E-key, NGFF 2230)

20



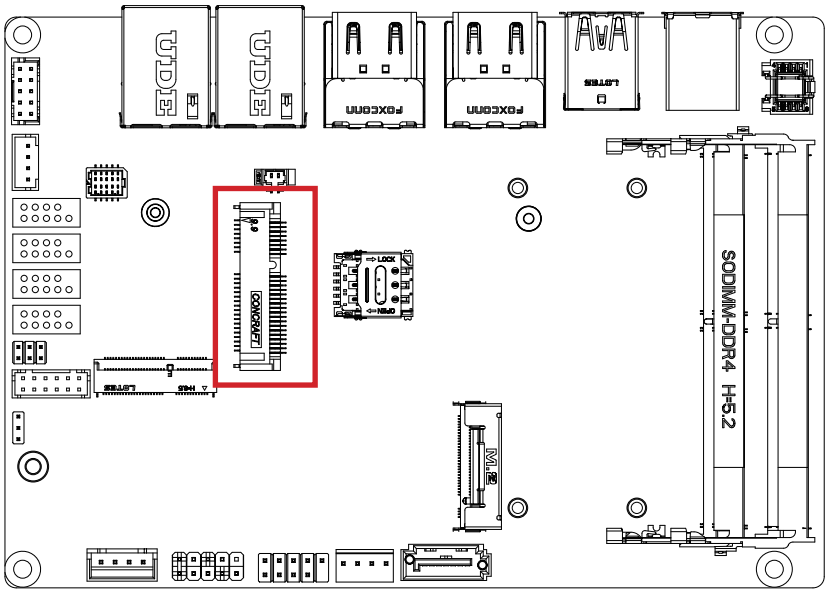
M.2 E Key Connector			
74 2			
75 1			
Pin No.	**Definition**	**Pin No.**	**Definition**
1	GND	2	3V
3	USB_Dp	4	3V
5	USB_Dn	6	NC
7	GND	8	NC
9	NC	10	NC
11	NC	12	NC
13	NC	14	NC
15	NC	16	NC
17	NC	18	GND
19	NC	20	NC
21	NC	22	NC
23	NC		

Pin No.	Definition	Pin No.	Definition
33	GND	32	NC
35	WLAN_TXp	34	NC
37	WLAN_TXn	36	NC
39	GND	38	NC
41	WLAN_RXp	40	NC
43	WLAN_RXn	42	NC
45	GND	44	NC
47	CLK_Dp	46	NC
49	CLK_Dn	48	NC
51	GND	50	SUSCLK
53	CLK_REQ	52	PCIE_RST
55	PCIE_WAKE	54	BT_Disable#
57	GND	56	WLAN_ DISABLE
59	NC	58	NC
61	NC	60	NC
63	GND	62	NC
65	NC	64	NC
67	NC	66	NC
69	GND	68	NC
71	NC	70	NC
73	NC	72	3V
75	GND	74	3V

Connector PN	Vendor
APCI0095-P002A	LOTES
80152-8521	BELLWETHER

2.2.18 MPCIE (Mini PCIE slot)

21



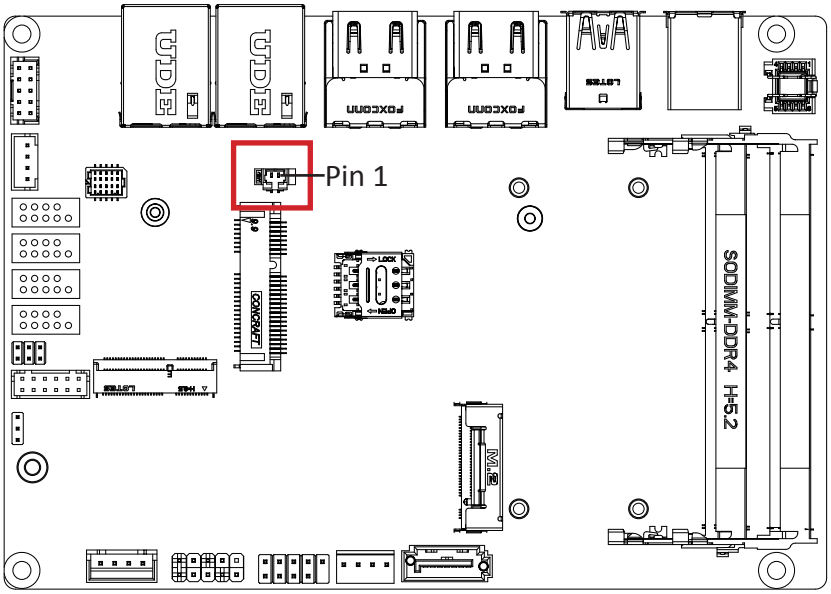
Mini PCIe Connector			
1		2	
51		52	

Pin No.	Definition	Pin No.	Definition
1	PCIE_WAKE#	2	3.3V
3	NC	4	GND
5	NC	6	1.5V
7	PCIE_ CLKREQ#	8	SIM_PWR
9	GND	10	SIM_DATA
11	PCIE_CLKn	12	SIM_CLK
13	PCIE_CLKp	14	SIM_RST
15	GND	16	SIM_VPP
17	NC	18	GND
19	NC	20	PCIE_DISABLE
21	GND	22	PCIRST#
23	PCIE_RXn	24	3.3V
25	PCIE_RXp	26	GND
27	GND	28	1.5V
29	GND	30	SMBCLK
31	PCIE_TXn	32	SMBDATA
33	PCIE_TXp	34	GND
35	GND	36	USBD-
37	GND	38	USBD+
39	3.3V	40	GND
41	3.3V	42	NC
43	GND	44	NC
45	NC	46	NC
47	NC	48	1.5V
49	NC	50	GND
51	NC	52	3.3V

Connector PN	Vendor
AS0B221-S99Q-7H	FOXCONN

2.2.19 Battery (Battery Connector)

22

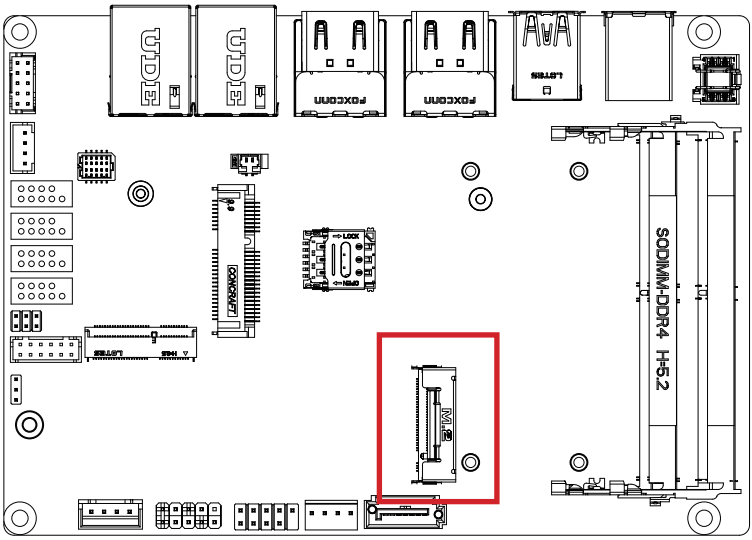


Battery Connector
2 1

Pin No.	Definition
1	3V
2	GND

2.2.20 M2M (M.2 M-key, NGFF 2280)

23



M.2 M Key Connector


Pin No.	Definition	Pin No.	Definition
1	GND	2	3.3V
3	GND	4	3.3V
5	NC	6	NC
7	NC	8	NC
9	GND	10	M2_LED
11	NC	12	3.3V
13	NC	14	3.3V
15	GND	16	3.3V
17	NC	18	3.3V
19	NC	20	NC
21	GND	22	NC
23	NC	24	NC
25	NC	26	NC
27	GND	28	NC
29	PCIE_RXn	30	NC
31	PCIE_RXp	32	NC
33	GND	34	NC
35	PCIE_TXn	36	NC

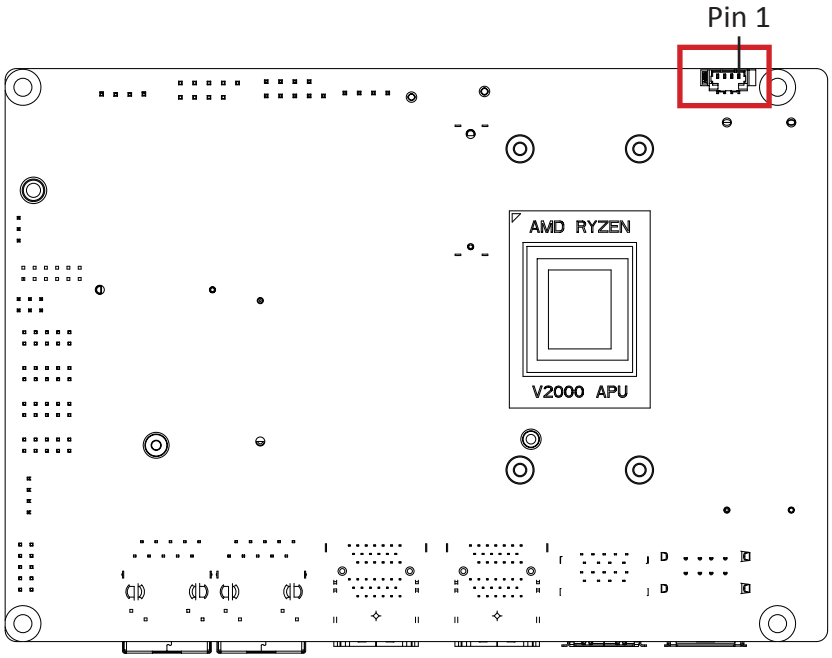
Pin No.	Definition	Pin No.	Definition
37	PCIE_ TXp	38	DEVSLP
39	GND	40	SMB Clock
41	SATA_RXp	42	SMB DATA
43	SATA_RXn	44	SMB ALERT
45	GND	46	NC
47	SATA_TXn	48	NC
49	SATA_TXp	50	PLT_RST
51	GND	52	CK_REQ
53	CLK_n	54	PCIE_WAKE#
55	CLK_p	56	NC
57	GND	58	NC

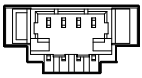
Pin No.	Definition	Pin No.	Definition
67	NC	68	SUSCLK
69	M2_SSD_ Detect	70	3.3V
71	GND	72	3.3V
73	GND	74	3.3V
75	GND		

Connector PN	Vendor
2E0BC41-C85CM-LH	FOXCONN

2.2.21 CPU_FAN (CPU FAN connector)

24



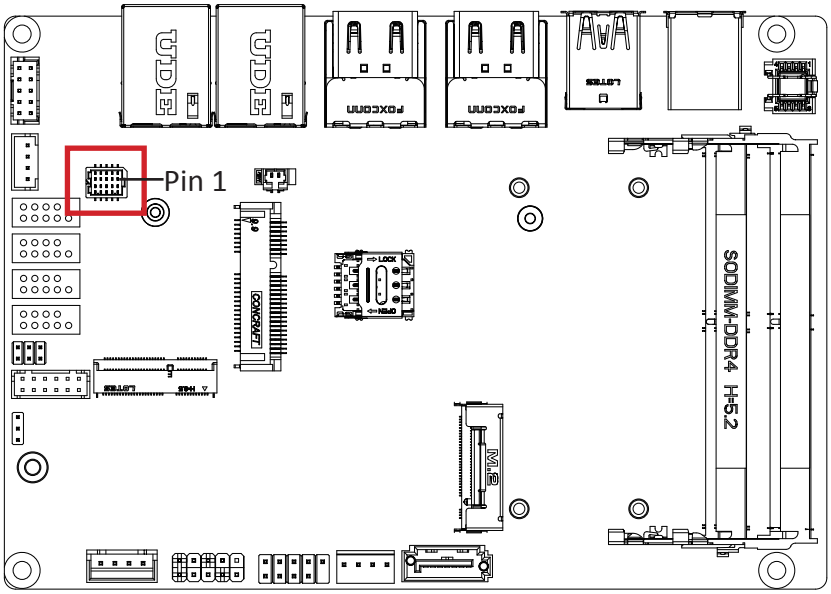
CPU FAN connector
4 3 2 1 

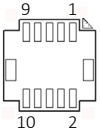
Connector PN	Vendor
85205-0470N	ACES
A1250WV-S-04PC	JOINT-TECH

Pin No.	Definition
1	GND
2	12V
3	Detect
4	Speed Control

2.2.22 80H (LPC TPM header)

25



TPM header


Pin No.	Definition
1	LPC_CLK
2	GND
3	LFRAME#
4	LAD0
5	PCI_RST
6	LAD1
7	LAD3
8	LAD2

Pin No.	Definition
9	3.3V
10	SERIRQ

Connector PN	Vendor
87216-1004-06	ACES

Chapter 3

Chapter 3 – BIOS

3.1 Introduction

BIOS (Basic input/output system) provides hardware detailed information and boot-up options, which include firmware to control, set-up and test all hardware settings. Therefore, BIOS is the communication bridge between OS/application software and hardware.

3.1.1 How to Entering into BIOS menu

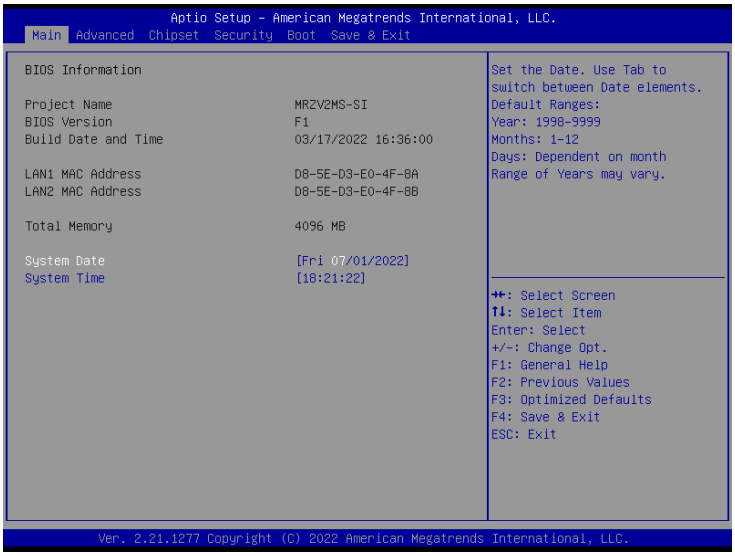
Once the system is power on, press the <DEL> key as soon as possible to access into BIOS Setup program.

3.1.2 Function Keys to setup in BIOS Setup program

Function keys	Description
→←	Select Screen
↑↓	Select Item
Enter	Execute command or enter the submenu
+	Increase the numeric value or make changes
—	Decrease the numeric value or make changes
F1	General Help
F2	Previous Values
F3	Load Optimized Defaults Settings
F4	Save changes & Exit the BIOS Setup program
ESC	Exit the BIOS Setup program

3.2 The Main Menu

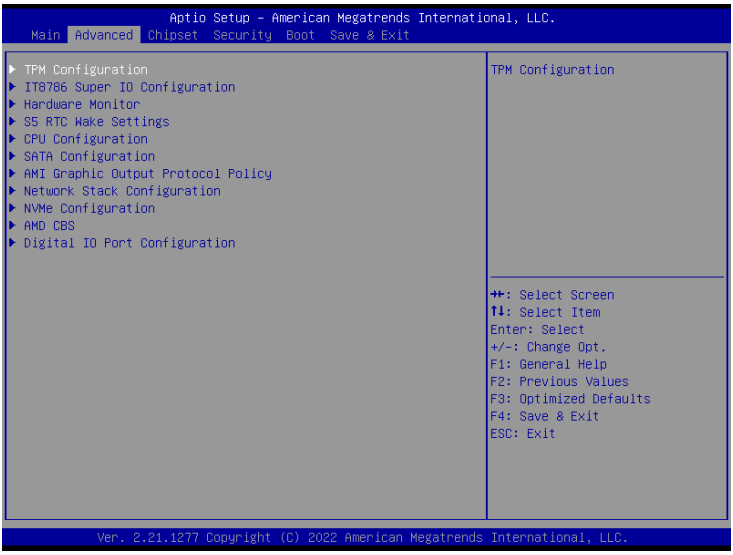
The main menu shows the basic system information.
Use arrow keys to move among the items.



Items	Description
Project Name	Shows Project name information
BIOS Version	Shows the BIOS version of the system
Build Date and Time	Shows the Build Date and Time when the BIOS was created.
LAN1 MAC Address	Shows LAN1 MAC Address information
LAN2 MAC Address	Shows LAN2 MAC Address information
Total Memory	Shows the total memory size of the installed memory
System Date	Set the Date for the system (Format : Week - Month - Day - Year)
System Time	Set the time for the system (Format : Hour - Minute - Second)

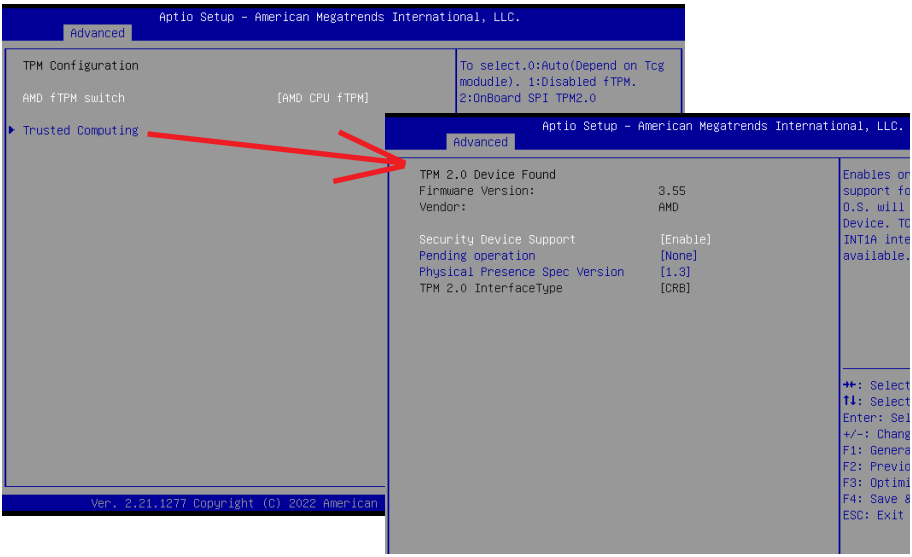
3.3 Advanced

The Advanced menu is to configure the functions of hardware settings through submenu. Use arrow keys to move among the items, and press <Enter> to access into the related submenu.



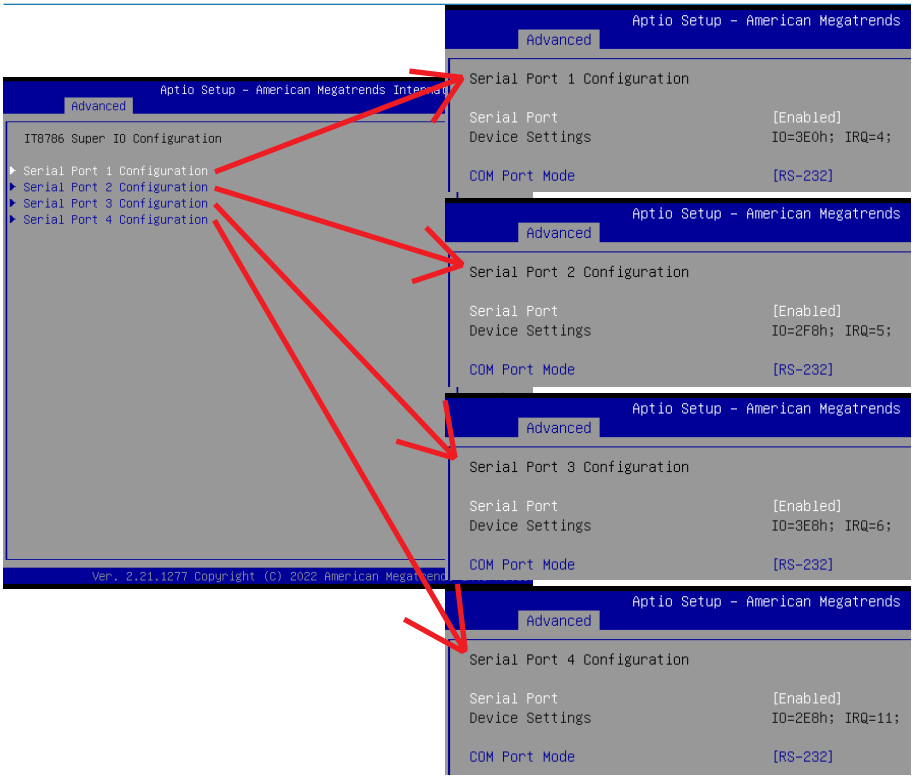
3.3.1 TPM Configuration

Use TPM Configuration submenu to choose TPM interface.



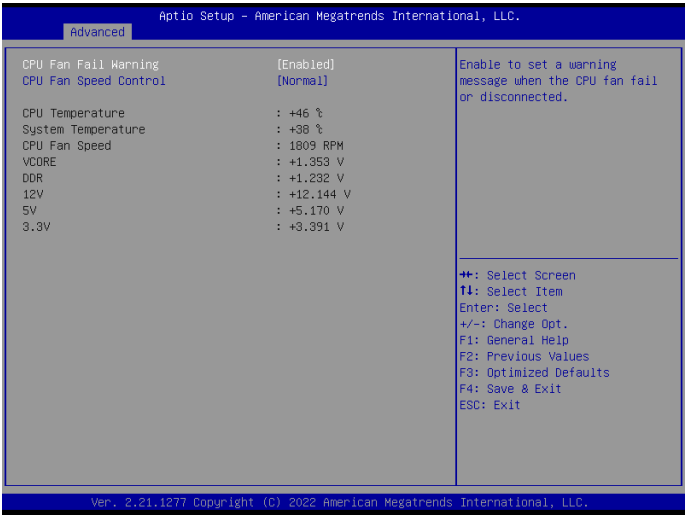
Item	Description
AMD fTPM switch	**AMD CPU fTPM : Enables AMD CPU firmwarm TPM (Default setting)** **Route to LPC TPM : Enables to route to LPC TPM**
Trusted Computing	Security Device Support : **Enabled : Enables TPM feature (Default setting)** **Disabled : Disables TPM feature** Pending operation : **None : No execution will be conducted (Default setting)** **TPM clear : Set to clear data on TPM** Physical Presence Spec Version : Choose PPI spec version **Option items : 1.2 or 1.3 (Default setting)**

3.3.2 IT8786 Super IO Configuration



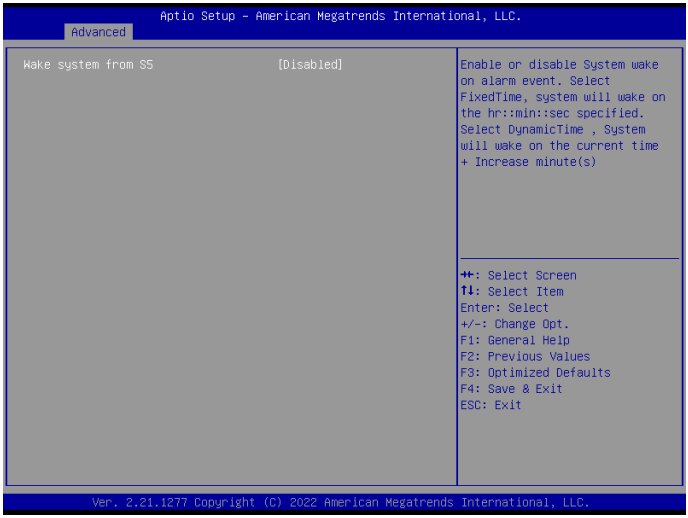
Item	Description
Serial Port 1 Configuration	Press [Enter] to configure advanced items : Serial Port : **Enabled : Enables allows you to configure the serial port settings** **Disabled : if Disabled, displays no configuration for the serial port** Device settings : Display the specified Serial Port base I/O address and IRQ Mode : Choose RS-232, RS-422, or RS-485 feature
Serial Port 2 Configuration	
Serial Port 3 Configuration	
Serial Port 4 Configuration	

3.3.3 Hardware Monitor



Item	Description
CPU Fan Fail Warning	**Enabled : Enables CPU FAN Fail warning alert function (Default setting)** **Disabled : Disables CPU FAN Fail warning alert function**
CPU Fan Speed Control	**Normal : Fan speed set by BIOS default (Default setting)** **Full Speed : Set Fan operates at full speed**
CPU Temperature	Shows current CPU temperature
System Temperature	Shows current system temperature
CPU Fan Speed	shows current CPU Fan speed

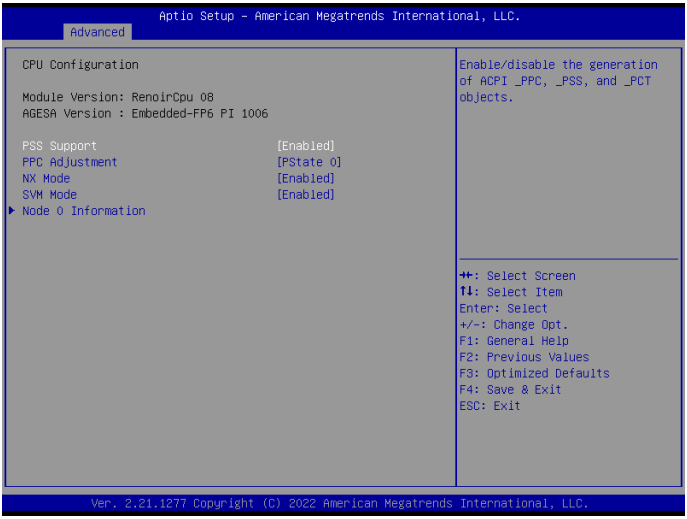
3.3.4 S5 RTC Wake Settings



Item	Description
Wake system from S5	Enable or Disable System to wake on a specific time. **Disabled : Disables system to wake on a specific time (Default setting)** **Fixed Time : Enables system to wake on a specific time** **(Format : hr : min : sec)**

3.3.5 CPU Configuration

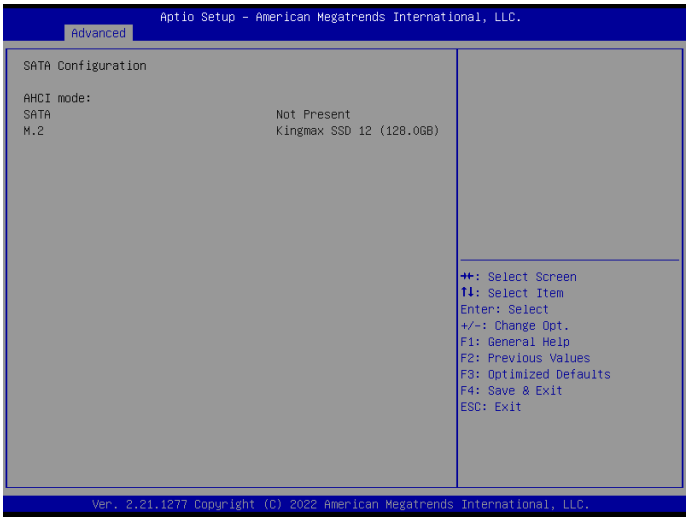
This submenu shows detailed CPU informations.



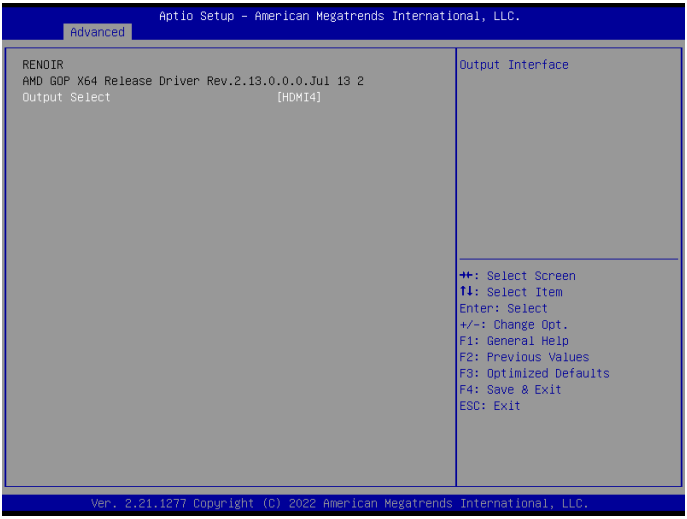
Item	Description
PSS Support	Allows you to get PState information **Enabled : Enables to get PState information (Default setting)** **Disabled : Disables to get PState information**
PPC Adjustment	To adjust the PState of the CPU **Option items : PState 0 (Default setting), PState 1, PState 2**
NX Mode	Enables or Disables the No-execute page-protection function. **Enabled : Enables NX Mode (Default setting)** **Disabled : Disables NX Mode**
SVM Mode	Enables or Disables the CPU virtualization funtion. **Enabled : Enables SVM Mode (Default setting)** **Disabled : Disables SVM Mode**
Node 0 Information	Shows AMD CPU information

3.3.6 SATA Configuration

SATA Configuration shows information when your SATA interface Storage is installed.

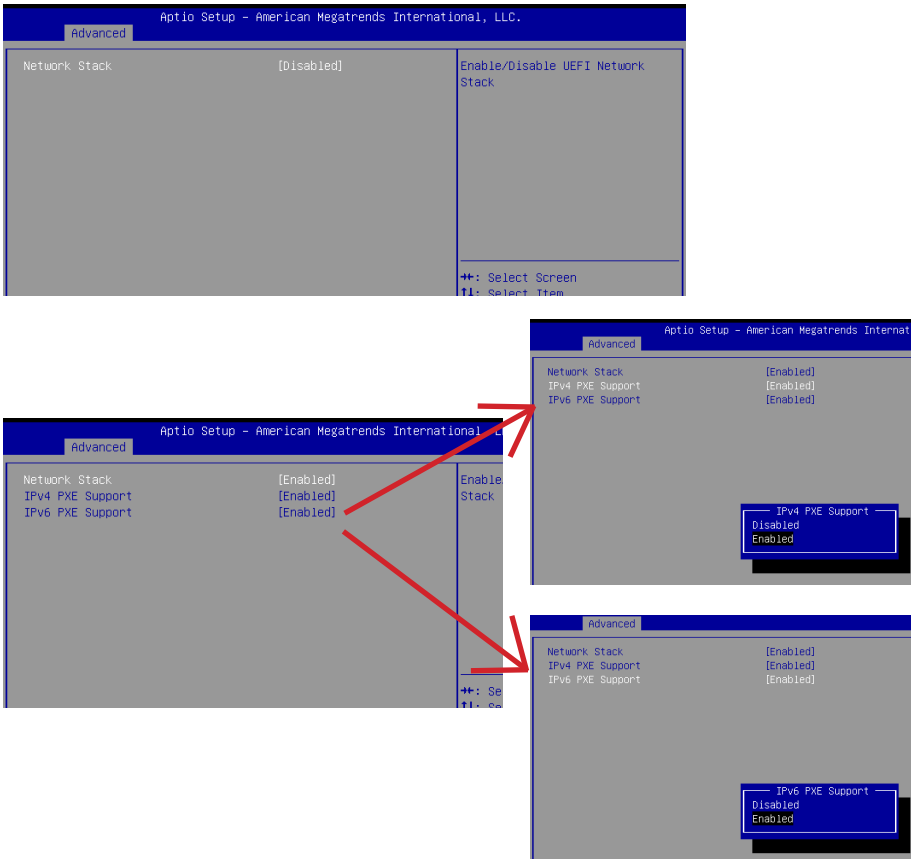


3.3.7 AMI Graphic Output Protocol Policy



Item	Description
Output Select	Choose default monitor output when there are more than one monitor plugged on the motherboard.

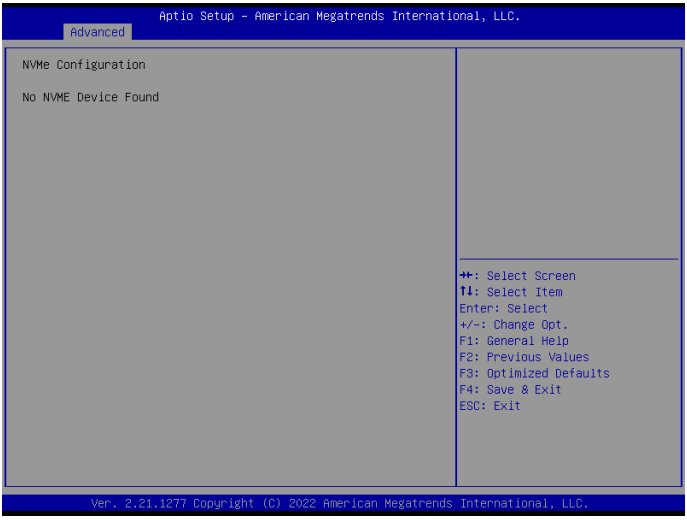
3.3.8 Network Stack Configuration



Item	Description
Network Stack	When system is power on, install LAN driver under UEFI mode **Disabled : Disables UEFI Network Stack (Default setting)** **Enabled : Enables UEFI Network Stack**
Ipv4 PXE Support	When Network stack is enabled : **Disabled : Disables Ipv4 PXE Support** **Enabled : Enables Ipv4 PXE Support**
Ipv6 PXE Support	When Network stack is enabled : **Disabled : Disables Ipv6 PXE Support** **Enabled : Enables Ipv6 PXE Support**

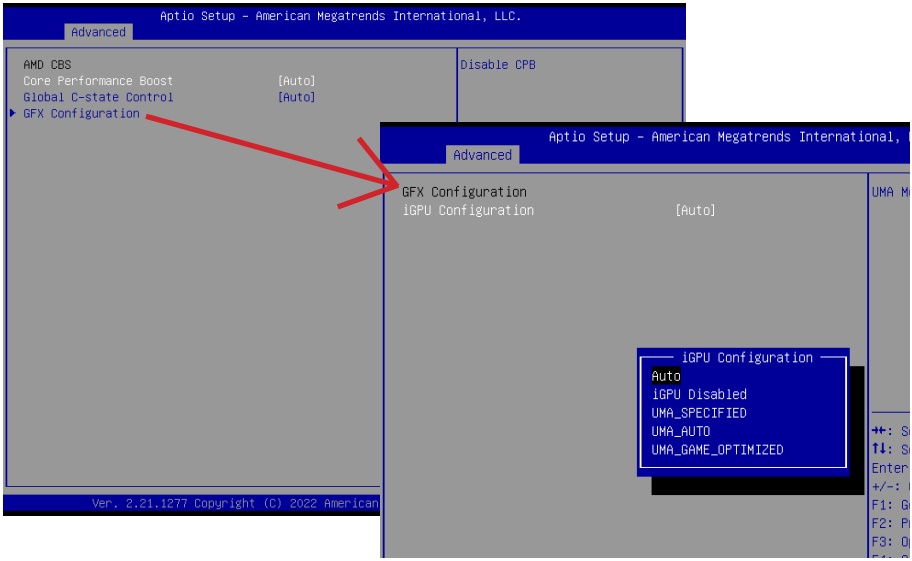
3.3.9 NVMe Configuration

NVMe Configuration shows information when your M.2 NVMe PCIe SSD is installed.



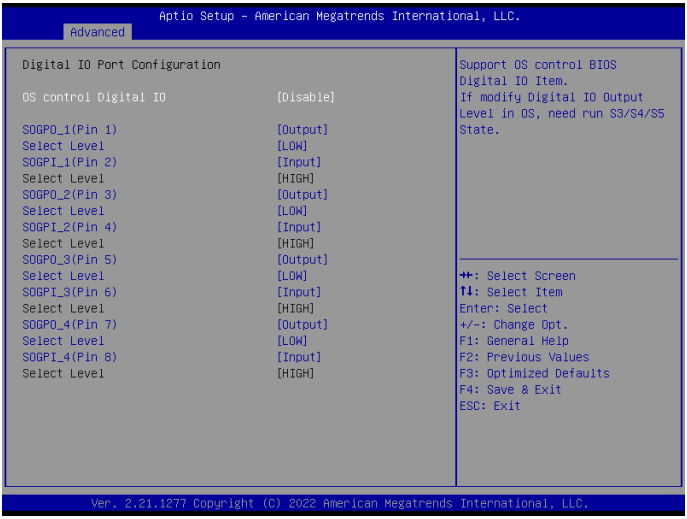
3.3.10 AMD CBS

For AMD CPU function settings.



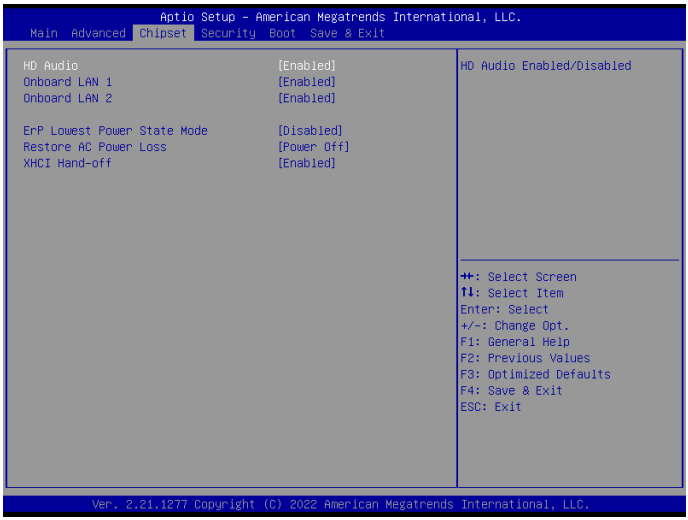
Item	Description
Core Performance Boost	To let CPU transits to a higher frequency. **Disabled : Disables Core Performance Boost** **Auto : System will automatically allocate its' frequency (Default setting)**
Global C-state Control	Command CPU to enter into low power consumption mode when CPU is under idle mode. **Disabled : Disables Global C-state Control function** **Enabled : Enables Global C-state Control function** **Auto : System will automatically enter into power saving mode (Default setting)**
GFX Configuration	For AMD CPU internal graphic setting **Option items : Auto (Default setting), iGPU Disabled, UMA_SPECIFIED, UMA_AUTO, UMA_GAME_OPTIMIZED**

3.3.11 Digital IO Port Configuration



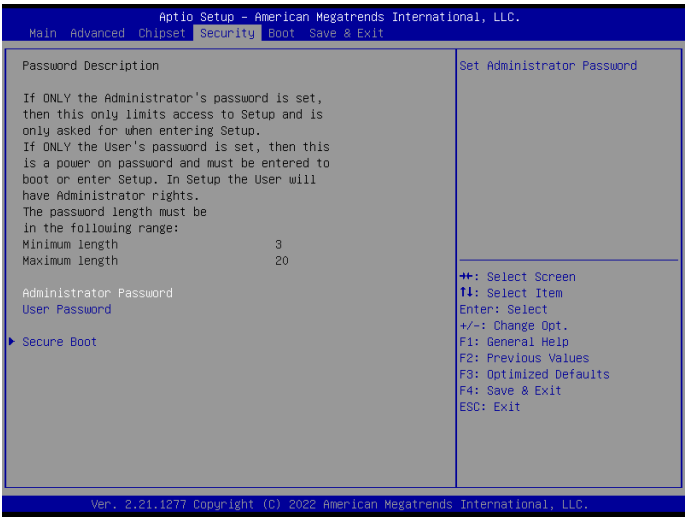
Item	Description
OS control Digital IO	**Disabled : If Digital IO Output value/level is modified in OS, they will not be memorized and kept. (Default setting)** **Enabled : If Digital IO Output value/level is modified in OS, they will be memorized and kept.**
SOGPO_1 (Pin 1) **SOGPI_1 (Pin 2)** **SOGPO_2 (Pin 3)** **SOGPI_2 (Pin 4)** **SOGPO_3 (Pin 5)** **SOGPI_3 (Pin 6)** **SOGPO_4 (Pin 7)** **SOGPI_4 (Pin 8)**	Configure Digital IO Input or Output values for each pin.

3.4 Chipset

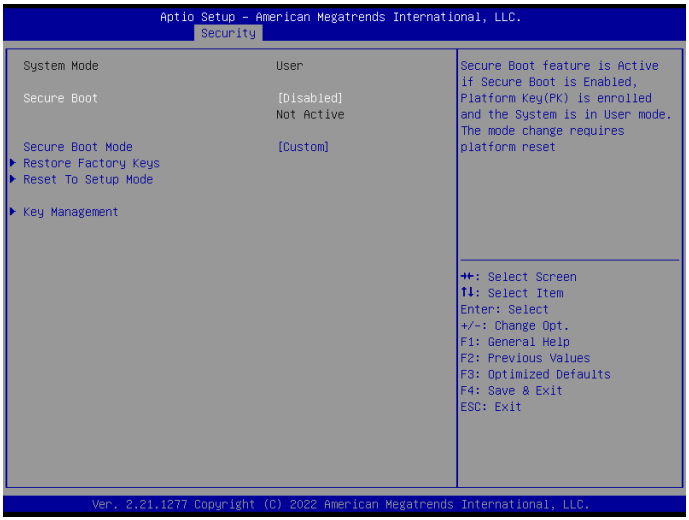


Item	Description
HD Audio	Enable/Disable onboard audio controller **Enabled : Enables onboard audio controller (Default setting)** **Disabled : Disables onboard audio controller**
Onboard LAN1 **Onboard LAN2**	Enable/Disable onboard LAN controller **Enabled : Enables onboard LAN controller (Default setting)** **Disabled : Disables onboard LAN controller**
ErP Lowest Power State Mode	Enable/Disable power saving funtion **Enabled : Enables ERP Lowest Power State Mode** **Disabled : Disabled ERP Lowest Power State Mode (Default setting)**
Restore AC Power Loss	To set which option the system should returns if a sudden power loss occured **Power on : System power on when the power is back** **Power off : Do not power on when the power is back (Default setting)** **Last state : Restore the system to the state before power loss occures**
XHCI Hand-off	Enable/Disable XHCI Hand-off function **Enabled : Enables XHCI Hand-off function (Default setting)** **Disabled : Disables XHCI Hand-off function**

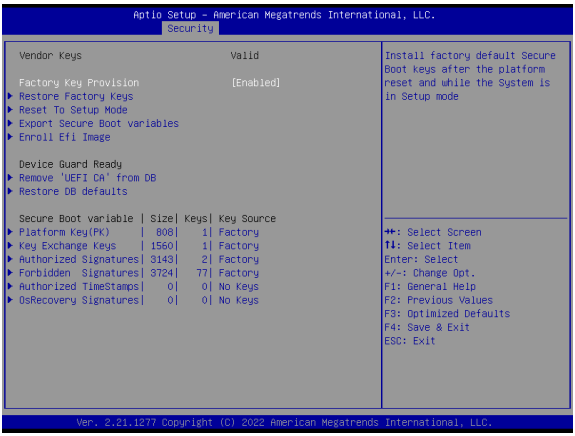
3.5 Security



Item	Description
Administrator Password	To set up Administrator's password **Minimum length : 3** **Maximum length : 20**
User Password	To set up User's password **Minimum length : 3** **Maximum length : 20**
Secure Boot	Press <Enter> to configure the advanced items



Item	Description
Secure Boot	Secure Boot requires all the applications that are running during the booting process to be pre-signed with valid digital certificates **Enabled : Enables Secure Boot function** **Disabled : Disables Secure Boot function (Default setting)**
Secure Boot Mode	**Standard : Standard mode** **Custom : Custom mode (Default setting)**
Restore Factory Keys	To restore factory settings **Yes : Agree to restore factory settings** **No : Cancel to restore factory settings**
Reset To Setup Mode	**Yes : Agree to setup mode** **No : Cancel to setup mode**
Key Management	Enables expert users to modify Secure boot policy variables without full authentication Press <Enter> to configure the advanced items

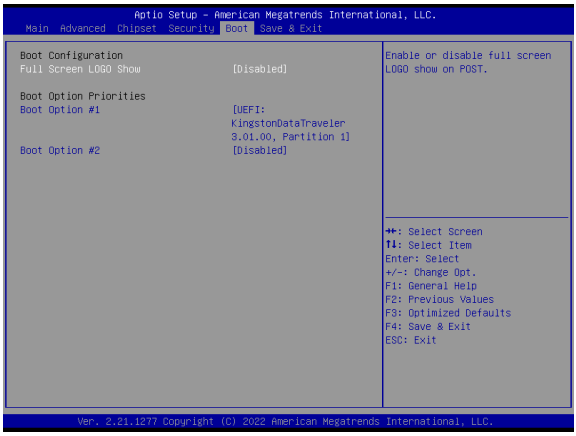


Item	Description
Factory Key Provision	Install factory default Secure Boot keys after the platform reset and while the system is in Setup mode **Enabled : Enables Factory Key Provision (Default setting)** **Disabled : Disables Factory Key Provision**
Restore Factory Keys	To restore factory settings **Yes : Agree to restore factory settings** **No : Cancel to restore factory settings**
Reset To Setup Mode	**Yes : Agree to setup mode** **No : Cancel to setup mode**
Export Secure Boot variables	Copy NVRAM content of Secure Boot variables to files in a root folder on a file system device
Enroll Efi Image	Allow the image to run in Secure Boot mode
Remove 'UEFI CA' from DB	To remove 'UEFI CA' from database **Yes : Agree to remove 'UEFI CA' from database** **No : Cancel to remove 'UEFI CA' from database**
Restore DB defaults	Restore DB variables to factory defaults **Yes : Agree to restore DB defaults** **No : Cancel to restore DB defaults**

Item	Description
Platform Key (PK)	These items allows you to enroll factory defaults or load Certificates from a file.
Key Exchange Keys	
Authorized Signatures	
Forbidden Signatures	
Authorized TimeStamps	
OsRecovery Signatures	

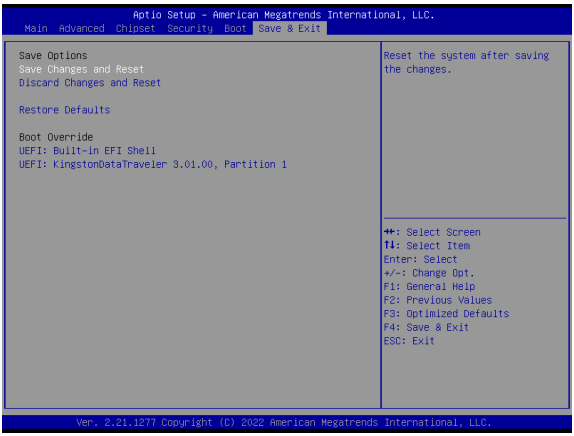
3.6 Boot

This Boot menu allows you to set/change system boot options



Item	Description
Full Screen LOGO Show	Enable/Disable full screen LOGO show on POST screen **Enabled : Enables Full screen LOGO Show on POST screen** **Disabled : Disables Full screen LOGO Show on POST screen (Default setting)**
Boot Option #1 **Boot Option #2**	Shows the information of the storage that be installed in the system **Choose/set the boot priority**

3.7 Save & Exit



Item	Description
Save Changes and Reset	After configuring all the options that you wish to change, choose this option to save all the changes and reboot the system **Yes : Agree to save and reset** **No : Cancel to save and reset**
Discard Changes and Reset	Choose this option to reboot the system without saving any changes **Yes : Agree to discard changes and reset** **No : Cancel to discard changes and reset**
Restore Defaults	Restore/Load default values for all the setup options **Yes : Agree to load optimized defaults** **No : Cancel to load optimized defaults**
Boot Override	Boot override