

Lanner

Embedded Computing Platform

Hardware Platforms for Intelligent Edge Computing

EAI-V330 User Manual

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About this Document



This manual describes the overview of the various functionalities of this product, and the information you need to get it ready for operation. It is intended for those who are:

- responsible for installing, administering and troubleshooting this system or Information Technology professionals.
- assumed to be qualified in the servicing of computer equipment, such as professional system integrators, or service personnel and technicians.

The latest version of this document can be found on Lanner's official website, available either through the product page or through the [Lanner Download Center](#) page with a login account and password.

Icons Descriptions

The icons are used in the manual to serve as an indication of interest topics or important messages.

Icon	Usage
 Note or Information	This mark indicates that there is something you should pay special attention to while using the product.
 Warning or Important	This mark indicates that there is a caution or warning and it is something that could damage your property or product.

Online Resources

To obtain additional documentation resources and software updates for your system, please visit the [Lanner Download Center](#). As certain categories of documents are only available to users who are logged in, please register for a Lanner Account at <http://www.lannerinc.com/> to access published documents and downloadable resources.

Technical Support

Besides contacting your distributor or sales rep, you can also submit a support ticket via our [Lanner Technical Support](#) for direct assistance from our technical support team.

Documentation Feedback

We greatly appreciate your feedback, as it enables us to refine and enhance our documentation to better suit your needs. For any comments, feedback, or error reports, please feel free to reach out to us at contact@lannerinc.com. Thank you for taking the time to help us improve.

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Federal Communication Commission Interference Statement

CE

This product has passed the CE test for environmental specifications. Test conditions for passing included the equipment being operated within an industrial enclosure. To protect the product from being damaged by ESD (Electrostatic Discharge) and EMI leakage, we strongly recommend the use of CE-compliant industrial enclosure products.

FCC Class A

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instruction, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- ▶ Reorient or relocate the receiving antenna.
- ▶ Increase the separation between the equipment and receiver.
- ▶ Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- ▶ Consult the dealer or an experienced radio/TV technician for help.

FCC Caution

- ▶ Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.
- ▶ This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.



Note

1. An unshielded-type power cord is required in order to meet FCC emission limits and also to prevent interference to the nearby radio and television reception. It is essential that only the supplied power cord be used.
2. Use only shielded cables to connect I/O devices to this equipment.
3. Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.



Important

1. Operations in the 5.15-5.25GHz band are restricted to indoor usage only.
2. This device meets all the other requirements specified in Part 15E, Section 15.407 of the FCC Rules.

Safety Guidelines

Follow these guidelines to ensure general safety:

- ▶ Keep the chassis area clear and dust-free during and after installation.
- ▶ Do not wear loose clothing or jewelry that could get caught in the chassis. Fasten your tie or scarf and roll up your sleeves.
- ▶ Wear safety glasses if you are working under any conditions that might be hazardous to your eyes.
- ▶ Do not perform any action that creates a potential hazard to people or makes the equipment unsafe.
- ▶ Disconnect all power by turning off the power and unplugging the power cord before installing or removing a chassis or working near power supplies
- ▶ Do not work alone if potentially hazardous conditions exist.
- ▶ Never assume that power is disconnected from a circuit; always check the circuit.
- ▶ This product is intended to be supplied by an UL Listed Power Adapter rated 24Vdc, min. 9.17A, min. 40-degree C, 5000m.
- ▶ The PoE networks without routing to the outside of plant that installation instructions clearly state; therefore, these circuits are not considered external circuit.

Consignes de sécurité

Suivez ces consignes pour assurer la sécurité générale:

- ▶ Laissez la zone du châssis propre et sans poussière pendant et après l'installation.
- ▶ Ne portez pas de vêtements amples ou de bijoux qui pourraient être pris dans le châssis. Attachez votre cravate ou écharpe et remontez vos manches.
- ▶ Portez des lunettes de sécurité pour protéger vos yeux.
- ▶ N'effectuez aucune action qui pourrait créer un danger pour d'autres ou rendre l'équipement dangereux.
- ▶ Coupez complètement l'alimentation en éteignant l'alimentation et en débranchant le cordon d'alimentation avant d'installer ou de retirer un châssis ou de travailler à proximité de sources d'alimentation.
- ▶ Ne travaillez pas seul si des conditions dangereuses sont présentes.
- ▶ Ne considérez jamais que l'alimentation est coupée d'un circuit, vérifiez toujours le circuit. Cet appareil génère, utilise et émet une énergie radiofréquence et, s'il n'est pas installé et utilisé conformément aux instructions des fournisseurs de composants sans fil, il risque de provoquer des interférences dans les communications radio.

Lithium Battery Caution

- ▶ There is risk of Explosion if Battery is replaced by an incorrect type.
- ▶ Dispose of used batteries according to the instructions.
- ▶ Installation only by a skilled person who knows all Installation and Device Specifications which are to be applied.
- ▶ Do not carry the handle of power supplies when moving to another place.
- ▶ Please conform to your local laws and regulations regarding safe disposal of lithium BATTERY.
- ▶ Disposal of a battery into fire or a hot oven, or mechanically crushing or cutting of a battery can result in an explosion.
- ▶ Leaving a battery in an extremely high temperature surrounding environment can result in an explosion or the leakage of flammable liquid or gas.
- ▶ A battery subjected to extremely low air pressure that may result in an explosion or leakage of flammable liquid/gas.

Avertissement concernant la pile au lithium

- ▶ Risque d'explosion si la pile est remplacée par une autre d'un mauvais type.
- ▶ Jetez les piles usagées conformément aux instructions.
- ▶ L'installation doit être effectuée par un électricien formé ou une personne formée à l'électricité connaissant toutes les spécifications d'installation et d'appareil du produit.
- ▶ Ne transportez pas l'unité en la tenant par le câble d'alimentation lorsque vous déplacez l'appareil.

Operating Safety

- ▶ Electrical equipment generates heat. Ambient air temperature may not be adequate to cool equipment to acceptable operating temperatures without adequate circulation. Be sure that the room in which you choose to operate your system has adequate air circulation.
- ▶ Ensure that the chassis cover is secure. The chassis design allows cooling air to circulate effectively. An open chassis permits air leaks, which may interrupt and redirect the flow of cooling air from internal components.

- ▶ Electrostatic discharge (ESD) can damage equipment and impair electrical circuitry. ESD damage occurs when electronic components are improperly handled and can result in complete or intermittent failures. Be sure to follow ESD-prevention procedures when removing and replacing components to avoid these problems.
- ▶ Wear an ESD-preventive wrist strap, ensuring that it makes good skin contact. If no wrist strap is available, ground yourself by touching the metal part of the chassis.
- ▶ Periodically check the resistance value of the antistatic strap, which should be between 1 and 10 megohms (Mohms).

Sécurité de fonctionnement

- ▶ L'équipement électrique génère de la chaleur. La température ambiante peut ne pas être adéquate pour refroidir l'équipement à une température de fonctionnement acceptable sans circulation adaptée. Vérifiez que votre site propose une circulation d'air adéquate.
- ▶ Vérifiez que le couvercle du châssis est bien fixé. La conception du châssis permet à l'air de refroidissement de bien circuler. Un châssis ouvert laisse l'air s'échapper, ce qui peut interrompre et rediriger le flux d'air frais destiné aux composants internes.
- ▶ Les décharges électrostatiques (ESD) peuvent endommager l'équipement et gêner les circuits électriques. Des dégâts d'ESD surviennent lorsque des composants électroniques sont mal manipulés et peuvent causer des pannes totales ou intermittentes. Suivez les procédures de prévention d'ESD lors du retrait et du remplacement de composants.
- ▶ Portez un bracelet anti-ESD et veillez à ce qu'il soit bien au contact de la peau. Si aucun bracelet n'est disponible, reliez votre corps à la terre en touchant la partie métallique du châssis.
- ▶ Vérifiez régulièrement la valeur de résistance du bracelet antistatique, qui doit être comprise entre 1 et 10 mégohms (Mohms).

Mounting Installation Precaution

The following should be put into consideration for rack-mount or similar mounting installations:

- ▶ Do not install and/or operate this unit in any place that flammable objects are stored or used in.
- ▶ The installation of this product must be performed by trained specialists; otherwise, a non-specialist might create the risk of the system's falling to the ground or other damages.
- ▶ Lanner Electronics Inc. shall not be held liable for any losses resulting from insufficient strength for supporting the system or use of inappropriate installation components.
- ▶ Elevated Operating Ambient - If installed in a closed or multi-unit rack assembly, the operating ambient temperature of the rack environment may be greater than room ambient. Therefore, consideration should be given to installing the equipment in an environment compatible with the maximum ambient temperature (T_{ma}) specified by the manufacturer.
- ▶ Reduced Air Flow - Installation of the equipment in a rack should be such that the amount of airflow required for safe operation of the equipment is not compromised.
- ▶ Mechanical Loading - Mounting of the equipment in the rack should be such that a hazardous condition is not achieved due to uneven mechanical loading.
- ▶ Circuit Overloading - Consideration should be given to the connection of the equipment to the supply circuit and the effect that overloading of the circuits might have on overcurrent protection and supply wiring. Appropriate consideration of equipment nameplate ratings should be used when addressing this concern.
- ▶ Reliable Grounding - Reliable grounding of rack mounted equipment should be maintained. Particular attention should be given to supply connections other than direct connections to the branch circuit (e.g. use of power strips).

Installation & Operation:

- ▶ This equipment must be grounded. The power cord for product should be connected to a socket-outlet with earthing connection.
Cet équipement doit être mis à la terre. La fiche d'alimentation doit être connectée à une prise de terre correctement câblée
- ▶ Suitable for installation in Information Technology Rooms in accordance with Article 645 of the National Electrical Code and NFPA 75.
Peut être installé dans des salles de matériel de traitement de l'information conformément à l'article 645 du National Electrical Code et à la NFPA 75.
- ▶ The machine can only be used in a restricted access location and must be installed by a skilled person.
Les matériels sont destinés à être installés dans des EMBLEMES À ACCÈS RESTREINT.

Warning

- ▶ Class I Equipment. This equipment must be earthed. The power plug must be connected to a properly wired earth ground socket outlet. An improperly wired socket outlet could place hazardous voltages on accessible metal parts.
- ▶ Product shall be used with Class 1 laser device modules.

Avertissement

- ▶ Équipement de classe I. Ce matériel doit être relié à la terre. La fiche d'alimentation doit être raccordée à une prise de terre correctement câblée. Une prise de courant mal câblée pourrait induire des tensions dangereuses sur des parties métalliques accessibles.
- ▶ Le produit doit être utilisé avec des modules de dispositifs laser de classe 1.

Electrical Safety Instructions

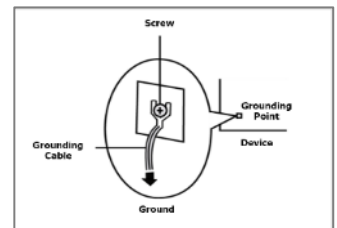
- ▶ Before turning on the device, ground the grounding cable of the equipment.
- ▶ Proper grounding (grounding) is very important to protect the equipment against the harmful effects of external noise and to reduce the risk of electrocution in the event of a lightning strike.
- ▶ To uninstall the equipment, disconnect the ground wire after turning off the power.
- ▶ A ground wire is required and the part connecting the conductor must be greater than 4 mm² or 10 AWG.

Consignes de sécurité électrique

- ▶ Avant d'allumer l'appareil, reliez le câble de mise à la terre de l'équipement à la terre.
- ▶ Une bonne mise à la terre (connexion à la terre) est très importante pour protéger l'équipement contre les effets néfastes du bruit externe et réduire les risques d'électrocution en cas de foudre.
- ▶ Pour désinstaller l'équipement, débranchez le câble de mise à la terre après avoir éteint l'appareil.
- ▶ Un câble de mise à la terre est requis et la zone reliant les sections du conducteur doit faire plus de 4 mm² ou 10 AWG.

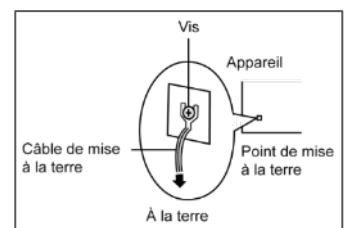
Grounding Procedure for Power Source

- ▶ Loosen the screw of the earthing point.
- ▶ Connect the grounding cable to the ground.
- ▶ The protection device for the power source must provide 30 A current.
- ▶ This protection device must be connected to the power source before power.
- ▶ The cable should 16 AWG



Procédure de mise à la terre pour source d'alimentation

- ▶ Desserrez la vis du terminal de mise à la terre.
- ▶ Branchez le câble de mise à la terre à la terre.
- ▶ L'appareil de protection pour la source d'alimentation doit fournir 30 A de courant.
- ▶ Cet appareil de protection doit être branché à la source d'alimentation avant l'alimentation.
- ▶ Le câble doit 16 AWG



This equipment is for INDOOR USE ONLY

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CHAPTER 1: PRODUCT OVERVIEW

The EAI-V330 series is engineered as a cost-effective embedded system, incorporating the Intel® Elkhart Lake Extended Temp CPU. This configuration delivers high-quality performance while maintaining low power consumption, making it ideal for in-vehicle computing applications. Additionally, this product boasts AI acceleration capabilities, with support for features such as the HAILO-8 M.2 2242 M-key socket. It is versatile enough to be employed in various applications, including general control system monitoring and physical security systems, among others.

Package Content

Your package contains the following items:

- ▶ 1x EAI-V330 In-vehicle Edge Computer
- ▶ 1x GNSS Antenna

Ordering Information

SKU No.	Description
EAI-V330A	Intel Atom® x6425E 4C/4T, 2.0GHz, 12W, LPDDR4/x 3200MT/s 16GB (up to 16GB), In/Out-of-Band Management, 1 x M.2 E-key socket for Wi-Fi6
EAI-V330B	Intel Atom® x6413E, 4C/4T, 1.5GHz, 9W, LPDDR4/x 3200MT/s 8GB (up to 16GB), 1x M.2 304(5)2 B-Key for 4G LTE/ 5G Sub6 with dual SIM sockets, 1 x M.2 E-key socket for Wi-Fi6
EAI-V330C	Intel Atom® x6211E, 2C/2T, 1.3GHz, 6W, LPDDR4/x 3200MT/s 4GB (up to 16GB); 1x M.2 304(5)2 B-Key for 4G LTE/ 5G sub6 with dual SIM sockets, 1 x M.2 E-key socket for Wi-Fi6
EAI-V330H	Intel Atom® x6425E, 4C/4T, 2.0GHz, 12W, LPDDR4/x 3200MT/s 16GB (up to 16GB), In/Out-of-Band Management, Default "PCIe x1" for M.2 E-key socket for Wi-Fi6

Optional Accessories

SKU No.	Description
PGN-300	Swappable 4G LTE Radio Modem with LTE Cat-6 embedded module
PGN-600	Swappable 4G LTE Radio Modem with LTE Cat-12 embedded module
PGN-750B	Swappable 5G Quectel RM500Q-AE module with antenna/cable kit.
CAN Bus	CAN Bus 77MT36478
PSFA877-001	LTE Antenna Kit for EAI-V330
PSFA878-001	WI-Fi Antenna Kit for EAI-V330

Specifications

Processor System	CPU	SKU A/H: Intel® Atom® x6425E, 4C/2.0GHz, 12W SKU B: Intel® Atom® x6413E, 4C/1.5GHz, 9W SKU C: Intel® Atom® x6211E, 2C/1.3GHz, 6W
	Chipset	SoC
	BIOS	AMI SPI Flash BIOS
Fanless		Yes
Memory	Technology	SODIMM DDR4, up to 3200MHz
	Max. Capacity	Up to 32GB (Default 16G/8G/4G By SKU)
	Socket	1x 260-pin SODIMM
Graphic	Graphic Controller	Intel® UHD Graphics
Audio	Codec	92HD73E1
	Interface	1x Mic-In, 1x Line-Out
Ethernet	Controller	Intel i210IS
	Interface	2x RJ45 GbE LAN Ports; 1x OOB Port (SKU A/H Only)
	PoE	4x IEEE 802.3af PoE Ports [2x PoE+] (Max 60W Power Budget)
Storage	Type	1x SATA 2.5" SSD; 1x mSATA;
I/O	Serial Port	2x RS232/422/485 COM Ports; 1x CAN 2.0
	Digital I/O	12V, 4x DI (Support PNP/NPN/Dry Contact) & 24V, 2x DO (Support dry/sink), 1x IGN_DI to MCU
	USB Port	1x USB 3.0 Type A Ports; 3x USB 2.0 Type A Ports
	LED Indicators	Power/Storage/ (LTE/Wi-Fi)/GPS LED Indicator
	Display Port	2x HDMI Ports with Lock
	Ethernet Port	2x 10/100/1000Mbps RJ45 LAN Ports
	PoE Port	4x 10/100/1000Mbps RJ45 IEEE802.3af/at PoE Ports, 1GigBE (+) w/ surge 1KV protection under maximum 60W power budget (Port 2-5 / PCIe 3.0) without isolation
	Audio Ports	1x Mic-In; 1x Line-Out
	GNSS/G-Sensor	u-blox NEO-M9N / ADXL 345
	Power Inlet	1x 3-Pin Terminal Block for Single DC Input from 24V +/-10% w/ RVP/RCP/OVP/OCP
	Antenna	6x Antenna Holes for Wi-Fi/5G/4G LTE
Expansion Interface	M.2	1x B-Key 3042/3050/3052 for 5G / Hailo-8 (By SKU); 1x E-Key 2230 for Wi-Fi6
Watchdog Timer	Watchdog Timer	Watchdog Timer 1-255 Level Time Interval System Reset, Software Programmable
Power	Type	DC Source
	Supply Voltage	+24VDC Typically
	Connector	1x 3-Pin Terminal Block
	Power Consumption (Idle)	16.36W
	Power Consumption (Full)	88.92W
Environment	Operating Temperature	-40~70°C / -40~158°F
	Storage Temperature	-40~85°C / -40~185°F
	Relative Humidity	5%~95% Operating; 5%~95% Non-Operating
Mechanical	Dimension (WxHxD)	273.8 x 98 x 185mm
	Weight	4.5 kg
	Mounting	Wall mount, VESA mount (Optional)

OS Support	Linux	Debian 11
	Windows	Win 10 IoT
Certification	EMC	FCC/CE Class A, UKCA, E24
	Safety	UL/cUL (UL-62368-1) & CB (DC 24V~60V Only), MIL-STD-810G
	RoHS	RoHS 3

Front Panel



No.	Description	
F1	LED Indicator	PoE Status LED Indicators
F2	OOB Port	1x RJ45 for Out-of-Band (OOB) Management Port (SKU A/H Only)
F3	LED Indicator	Power/Storage Status/(LTE/Wi-Fi)/GPS Status LED Indicators
F4	SIM Cover	1x Dual SIM Card Reader Cover
F5	Ethernet Port	2x RJ45 1GbE LAN Ports
F6	Audio Port	1x Mic-In; 1x Line-Out
F7	USB Port	3x USB 2.0 Type A Ports; 1x USB 3.0 Type A Port
F8	Serial Port	1x DB9 Male Connector for CAN Bus
F9	SSD Storage Bay	1x Removable 2.5" SSD Storage Bay
F10	PGN	1x Removable PGN Caddy for PGN-300/600/750
F11	Antenna	6x Antennas Holes for Wi-Fi/LTE/5G

Rear Panel

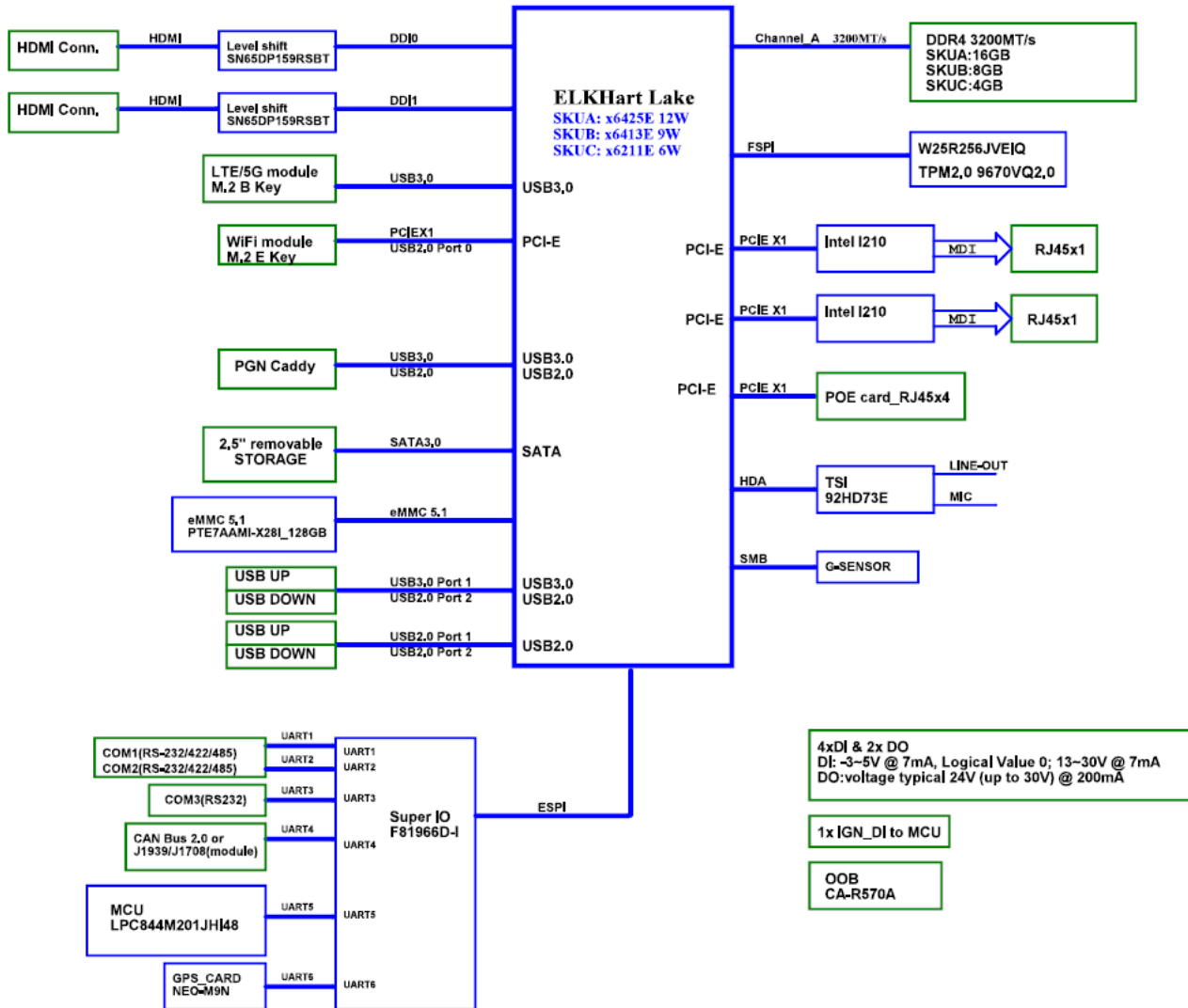


No.	Description	
R1	Reset Button	1x Reset Button
R2	COM Port	2x DB9 COM Ports for RS232/422/485
R3	Display Port	2x HDMI Ports w/ cable lock
R4	DIO	1x 2x10-Pin Terminal Block Connector: 4x DI (support PNP/NPN/Dry Contact); 2x DO (support Sink Contact); 1x IG_N_DI to MCU
R5	Power Input	1x 3-Pin Terminal Block for DC Input 12/24/48V
R6	Ethernet/PoE	4x 1Gbe RJ45 LAN/PoE+ support IEEE802.3af/at with surge 1KV protection under maximum 60W power budget
R7	Antenna Hole	1x Antenna Hole for GPS/GLONASS
R8	Ground Hole	1x Semi-shearing hole for grounding

Motherboard Information

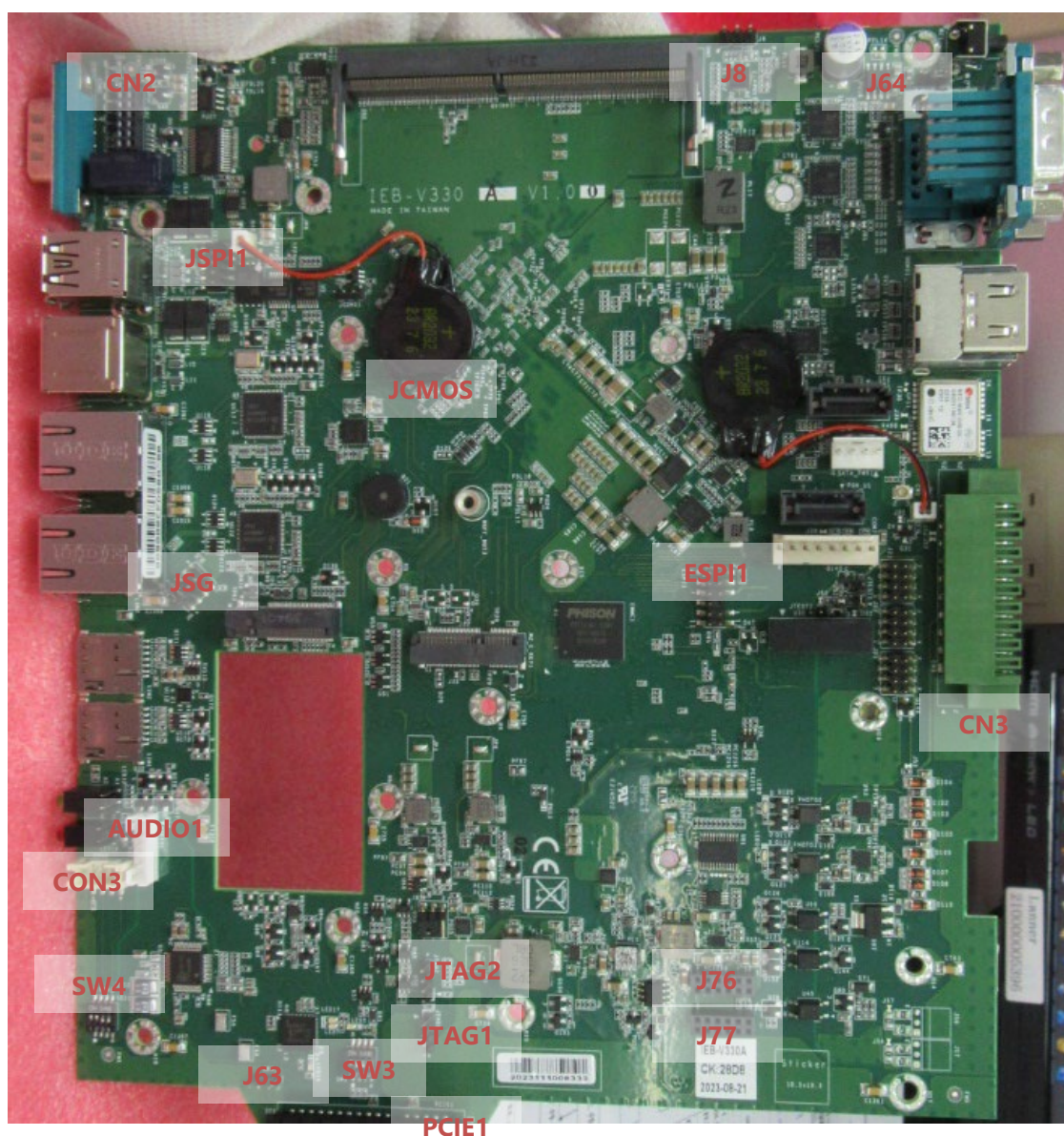
Block Diagram

The block diagram indicates how data flows among components on the motherboard.



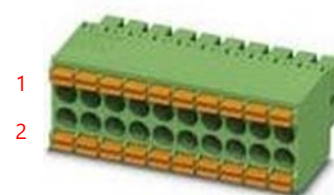
Internal Jumpers and Connector

The pin headers on the motherboard are often associated with important functions. With the shunt (Jumper) pushed down on the designated pins (the pin numbers are printed on the circuit board, surrounding the pin header), certain feature can be enabled or disabled. When changing the jumpers, make sure your system is completely turned off.

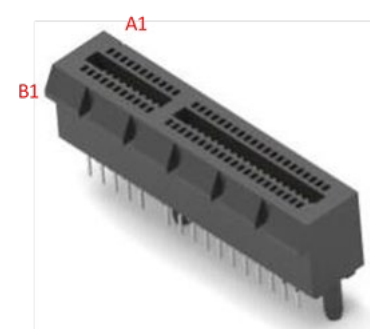


CN3: For DIO Function

Pin	Description	Pin	Description
1	DIO_GND	2	DIO_GND
3	DIO_GND	4	DIO_GND
5	DIO_GND	6	DIO_GND
7	IGN_DI_ISO_GND	8	IGN_DI_ISO_GND
9	IGN_DI_ISO	10	IGN_DI_ISO
11	DI4	12	DI4
13	DI3	14	DI3
15	DI2	16	DI2
17	DI1	18	DI1
19	+P30V_COM	20	+P30V_COM

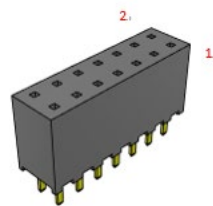
**PCIE1: For PoE Card IEE-IOV3301**

Pin	Description	Pin	Description
A1~A6	+P12V_S	B1~B6	+P5V_S
A7, A10, A12, A15, A18, A20, A23, A26, A31	GND	B7, B10, B13, B16, B18, B21, B22, B25, B29, B32	GND
A8, A9	+P3V3_S		
A11	POE_RST#	B8, B9	+P3V3_S
A13	POE_PCIE_CLK_P	B11	PMC_WAKE#
A14	POE_PCIE_CLK_N	B12, B19, B20, B23, B24, B27, B28, B30, B31	NC
A16	POE_PCIE_RXP		
A17	POE_PCIE_RXN		
A19	IGNITION		
A21	MCU_CLK		
A22	MCU_DAT	B14	POE_PCIE_C_TXP
A24	POE_INT	B15	POE_PCIE_C_TXN
A25	DC2DC_EN	B17	+P3V3_IGN_SB
A27~A30	NC		
A32	SLP_S3#		

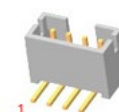


JCN2: For CAN Bus Module LVK-CBM1

Pin	Description	Pin	Description
1	BAT_12V_24V	2	K_LINE
3	DO	4	NC
5	GND	6	GND
7	NC	8	J1850+/J1708+
9	UART_RX	10	J1850-/J1708-
11	UART_TX	12	CAN_H/J1939+
13	+P5V_S	14	CAN_L/J1939-

**CON3: For MCU Firmware Upload Fixture**

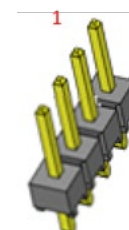
Pin	Description
1	+P3V3_IGN_SB
2	UART_RX
3	GND
4	UART_TX

**AUDIO1: For Analog Audio Function**

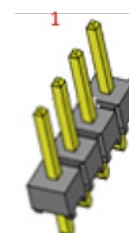
Pin	Description
1	MIC_IN_R
2	MIC_IN_L
3	GND
4	GND
5	FRONT_OUT_R
6	FRONT_OUT_L

**JTAG1: For OOB Module CA-R570**

Pin	Description
1	+P3V3_OOB_SB
2	PWR_BTN_N
3	SYS_RST_N
4	GND

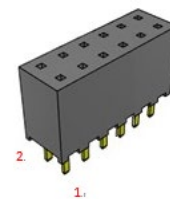
**JTAG2: Reserved for OOB Module CA-R570**

Pin	Signal
1	OOB_RESET_N
2	OOB_DIO
3	OOB_SDA
4	OOB_SCL

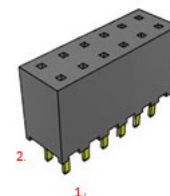


J76: For Power Board IEE-PB3301

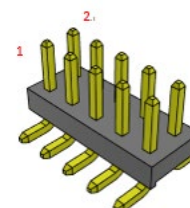
Pin	Description	Pin	Description
1	GND	2	+P54V_DCIN_VCC
3	GND	4	+P12V_A
5	GND	6	+P12V_A
7	+P12V_A	8	+P12V_A
9	+P12V_A	10	+P12V_A
11	+P12V_A	12	+P12V_A

**J77: For Power Board IEE-PB3301**

Pin	Description	Pin	Description
1	GND	2	GND
3	GND	4	GND
5	DC2DC_PWROK	6	GND
7	IGNITION	8	GND
9	DC2DC_EN	10	GND
11	NC	12	GND

**JSPI1: For SPI Fixture Debug Purpose**

Pin	Description	Pin	Description
1	SPI_HOLD#	2	NC
3	SPI_CS0#	4	SPI_3V3
5	SPI_MISO	6	NC
7	NC	8	SPI_CLK
9	GND	10	SPI_MOSI

**JCMOS1: For Clear CMOS**

Pin	Description
1	RTC_RST#
2	GND
3	SRTC_RST#

**J8: For Power Debug**

Pin	Description
1	GND
2	SMB_CLK_VR
3	SMB_DATA_VR

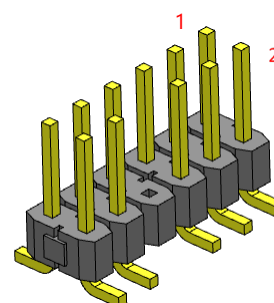


J64: For Reset Button Selection

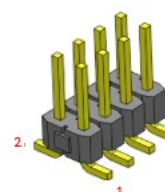
Pin	Description
1-2	Hardware reset
2-3	Software reset

**ESPI1: For eSPI Fixture 80Port Debug**

Pin	Description	Pin	Description
1	ESPI_CLK	2	ESPI_IO1
3	ESPI_RST#	4	ESPI_IO0
5	ESPI_CS#	6	+P3V3
7	ESPI_IO3	8	Key
9	ESPI_IO2	10	GND
11	+P3V3_AUX	12	NC

**J5G: For Board SKU Selection**

Pin	Description
1-2	Reserved
3-4	Reserved
5-6	H SKU
7-8	Reserved

**J63: For MCU Firmware Upload Setting**

Pin	Description
1-2	Reserved
2-3	ISP mode

**SW3: For MCU Function Select**

Pin	Description
1-on	Detect Power Good
2-on	Enable Low Power Detect
3-on	Enable Reserved Watch-Dog
4	NA

**SW4: For MCU Interface Select**

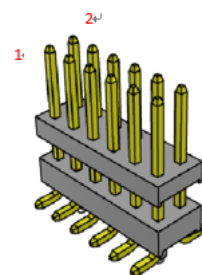
Pin	Description
1-on	Normal
2-on	Normal
3-on	ISP
4-on	ISP



Power Board

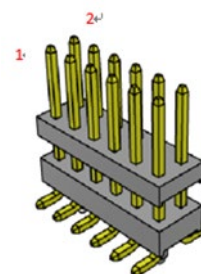
J3: For Power Delivery

Pin	Description	Pin	Description
1	+P54V_DCIN_VCC	2	GND
3	+P12V_A	4	GND
5	+P12V_A	6	GND
7	+P12V_A	8	+P12V_A
9	+P12V_A	10	+P12V_A
11	+P12V_A	12	+P12V_A



J4: For Power Delivery

Pin	Description	Pin	Description
1	GND	2	GND
3	GND	4	GND
5	GND	6	DC2DC_PWROK
7	GND	8	IGNITION
9	GND	10	DC2DC_EN
11	GND	12	NC



PRJK1: For DC Power Input

Pin	Description
1	s
2	GND
3	IGNITION



CHAPTER 2: HARDWARE SETUP

To reduce the risk of personal injury, electric shock, or damage to the unit, please remove all power connections to completely shut down the device and wear ESD protection gloves when handling the installation steps.

Open the Chassis

1. Power off the system and turn the system over. Unscrew the four (4) rubber pads securing the bottom chassis cover.
2. Then loosen the three (3) screws on the system's bottom chassis cover, front panel, and rear panel, the two (2) screws on the right side-panel, and the two (2) screws on the left side-panel.

Bottom Cover



Right-Side Panel



Left-Side Panel



Front Panel



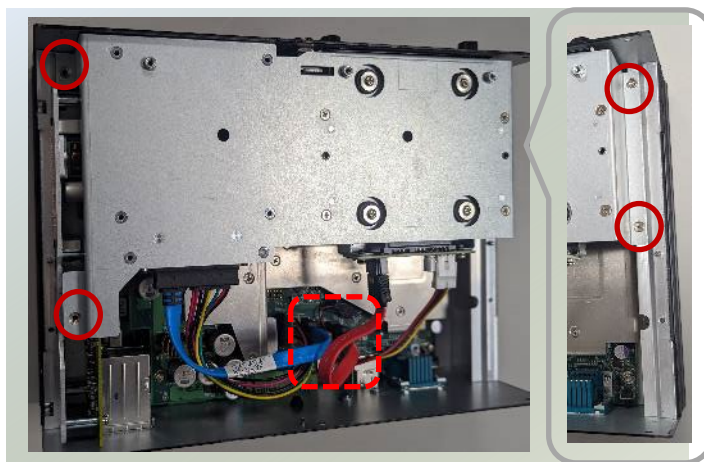
Rear Panel



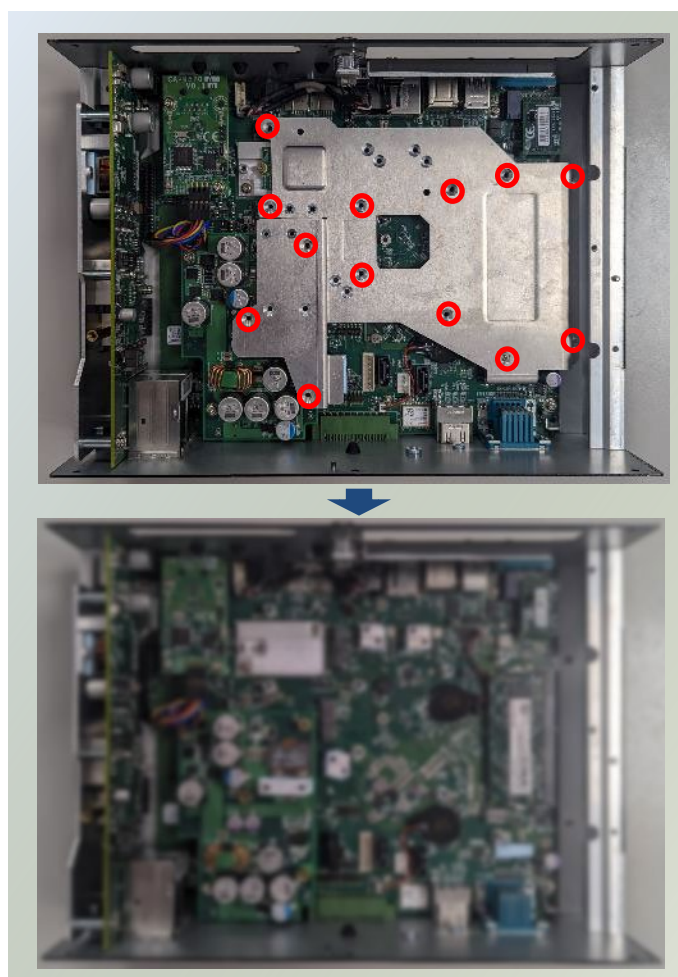
3. Lift and open the bottom chassis cover.



4. Then, remove the four (4) screws on the HDD/SSD metal partition, disconnect the cables, and lift up the HDD/SSD section.



5. Next, remove the thirteen (13) screws on the metal partition covering the motherboard, and then, remove the metal partition.



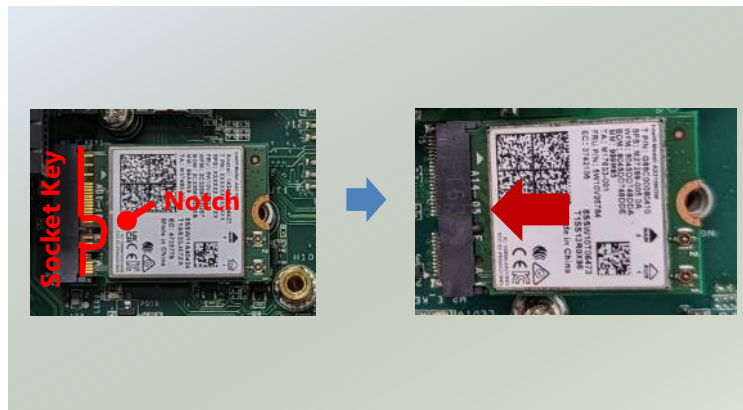
Installing Wi-Fi Module (Optional)

The system supports one M.2 E-key slot for a Wi-Fi module card, an optional accessory. Wi-Fi module requires two antennas. Please follow the steps to install the Wi-Fi module.

1. Power off the system, open the bottom chassis cover and remove HDD/SSD metal partition and metal partition cover.
2. Locate the M.2 E-Key slot on the motherboard.



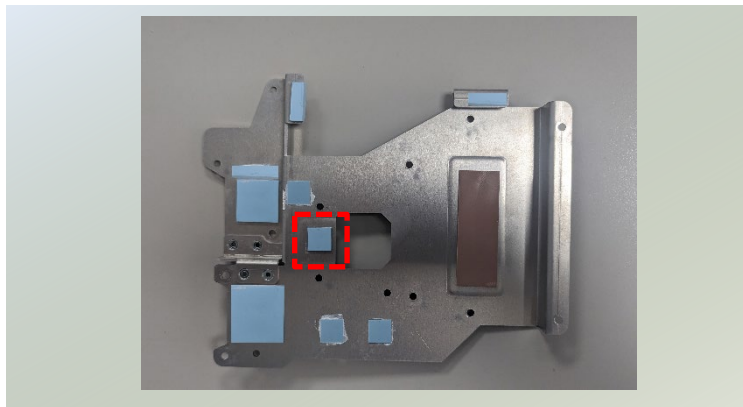
3. Align the notch of the Wi-Fi module with the socket key in the pin slot.
4. Insert the Wi-Fi module pins at 30 degrees into the socket until it is fully seated.



5. Push down on the module card and secure it with a screw.



6. Next, thermal pad placement. Remove the protective film on the thermal pad (included in accessory pack), and gently place the small square piece on the bottom side of the metal partition (which once covered, will be placed over the Wi-Fi module card).

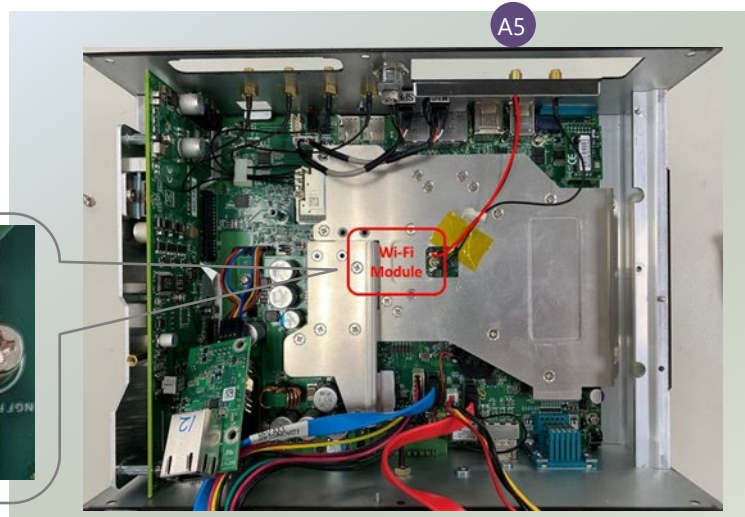


Installing Wi-Fi Antennas

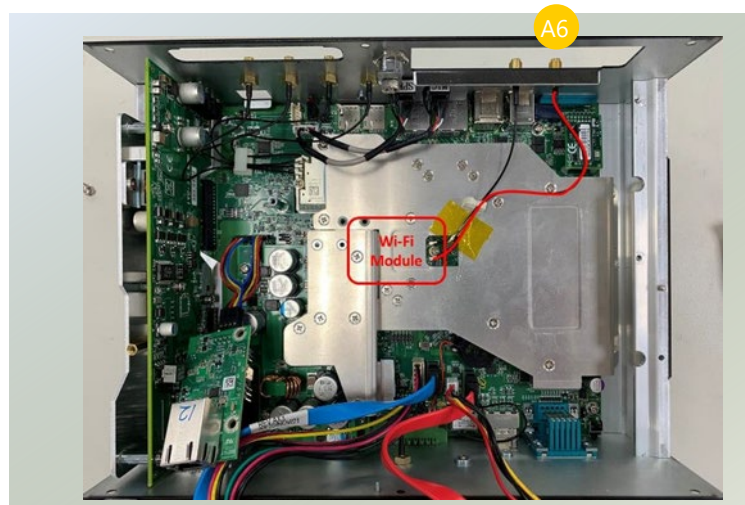
Front Panel



1. Locate the two (2) antenna hole placement (A5, A6). Locate the two (2) IPEX connectors on the Wi-Fi module.



2. Connect RF cables to the IPEX connectors on the Wi-Fi module and screw the other end of the cables in the antenna holes.
3. Then, screw the two (2) antennas on the front panel of the system.



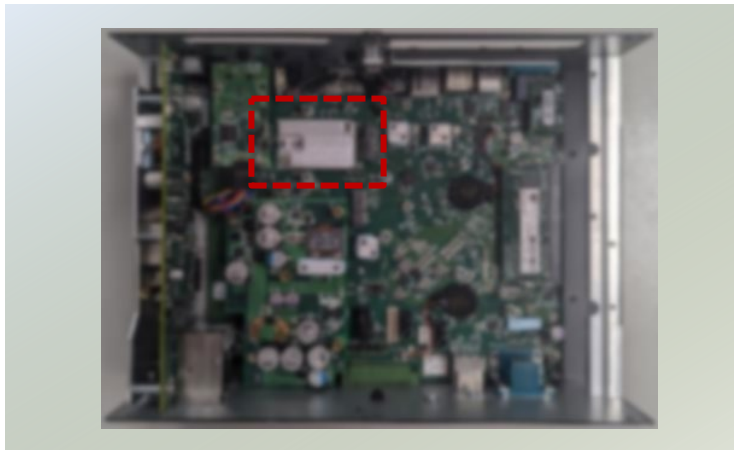
3. Then, screw the two (2) antennas on the front panel of the system.



Installing 5G Module (Optional)

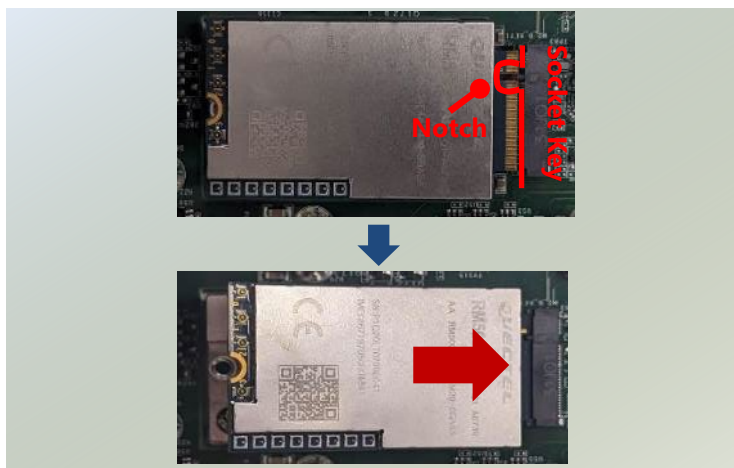
The motherboard provides one M.2 B-Key slot for a 4G LTE/ 5G module card, an optional additional accessory. 4G/LTE requires two antennas. 5G module will require four antennas. Please follow the installation procedures for the 5G module.

1. Power off the system, open the bottom chassis cover and remove HDD/SSD metal partition and metal partition cover.
2. Locate the M.2 B-Key slot on the motherboard.

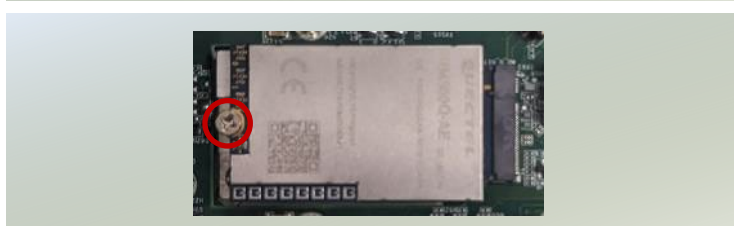


3. Align the notch of the module card with the socket key in the pin slot.

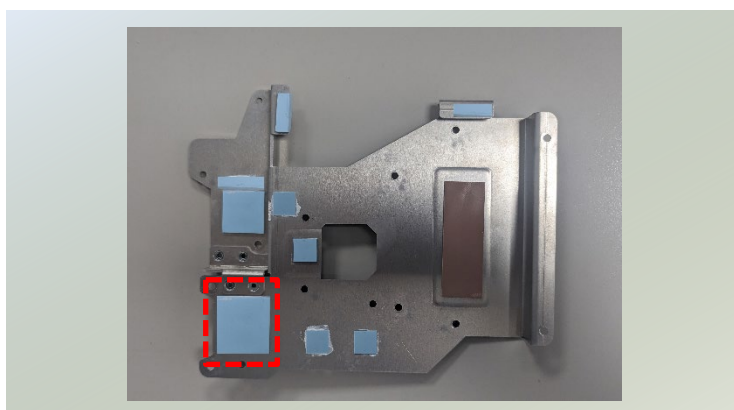
4. Insert the 5G module card pins at 30 degrees into the socket until it is fully seated.



5. Push down on the module card and secure it with a screw.



6. Next, thermal pad placement. Remove the protective film on the thermal pad (included in accessory pack), and gently place the small square piece on the bottom side of the metal partition (which once covered, will be placed over the 5G module card).

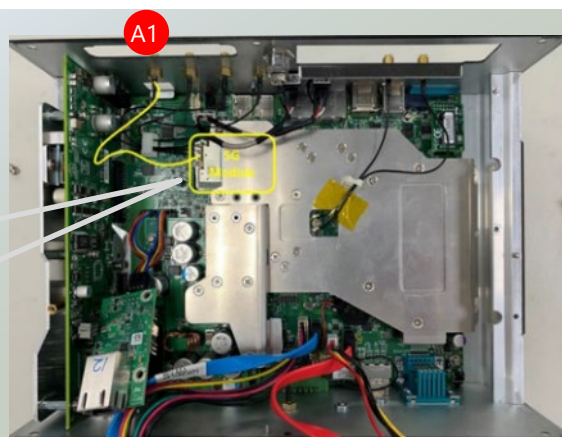


Installing 5G Antennas

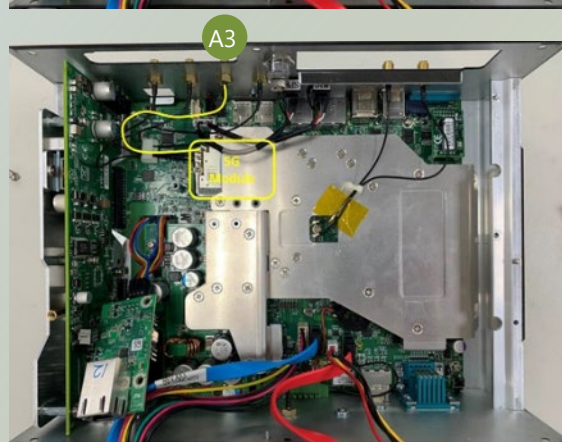
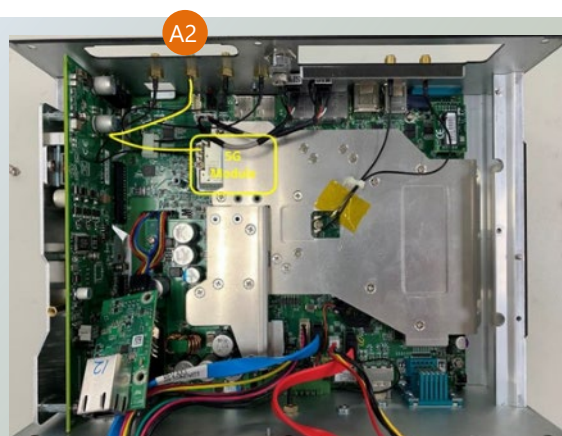
Front Panel

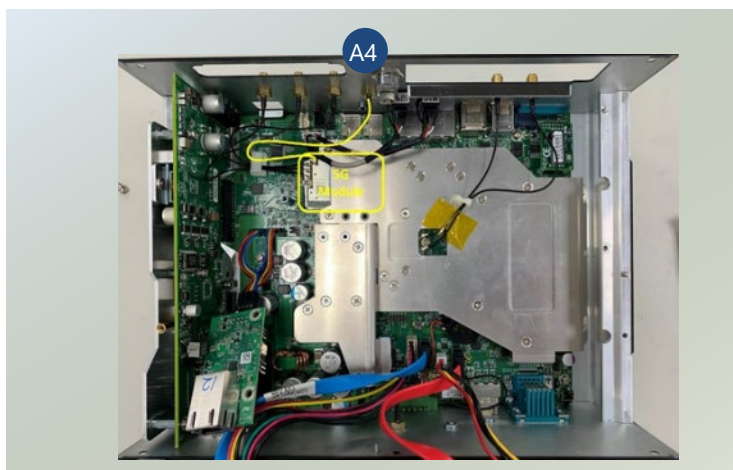


1. Locate the four (4) antenna hole placement (A1, A2, A3, A4). Locate the four (4) IPEX connectors on the 5G module card.



2. Connect the RF cables to the IPEX connectors on the 5G module and screw the other end of the cables in the antenna holes.





3. Then, screw on the four (4) antennas on the front panel of the system.



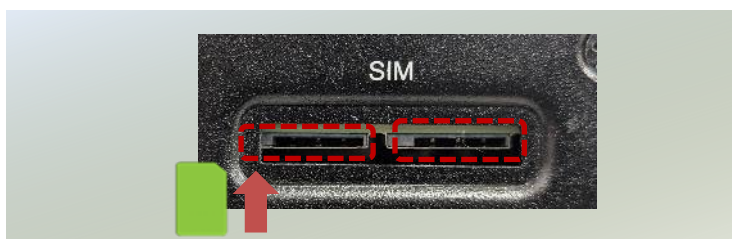
Installing SIM Cards

The SIM slot on the side panel supports dual Nano SIM cards. The SIM socket supports the push-push mechanism, allowing inserting and ejecting the SIM card to be as easy as one push.

1. Locate the SIM card cover on the side panel.
2. Loosen the one (1) screw and remove the slot cover.



3. Two Nano-SIM cards can be placed on the top layer. Insert and push the Nano-SIM cards, gold contacts facing upwards, all the way until they click into place.



4. To remove the Nano-SIM card, use your fingertips to push it once, to have the card automatically ejected.
5. Place the door back and tighten the original screw.

Installing Disk Drive (Optional)

The system supports one 2.5" HDD/SSD drive for additional data storage. Please follow the steps for installation.

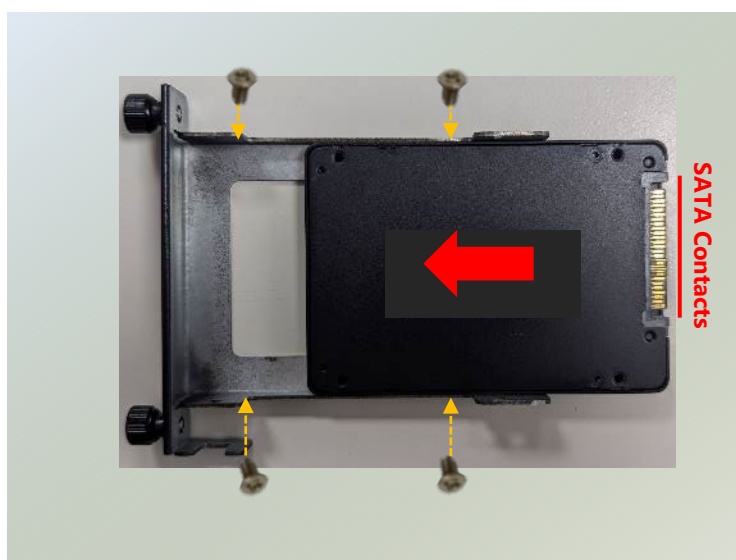
1. Power off the system. Locate the 2.5" HDD/SSD drive placement on the front panel of the system.



2. Unscrew the two thumbscrews that fix the tray on the system. Pull the drive tray out.



3. Install the disk onto the tray and secure with four (4) screws, two on each side. Make sure the SATA connector faces outwards as shown in the image.



4. Slide the tray into the drive bay and fasten the two thumbscrews that secures the tray on the system.



Installing PGN Module (Optional)

EAI-V330 comes with one PGN module slot for LTE/5G add-on. Follow the steps for installation.

The PGN module kit contains the following items:

- ▶ 1x PGN Module
- ▶ 4x Antennas



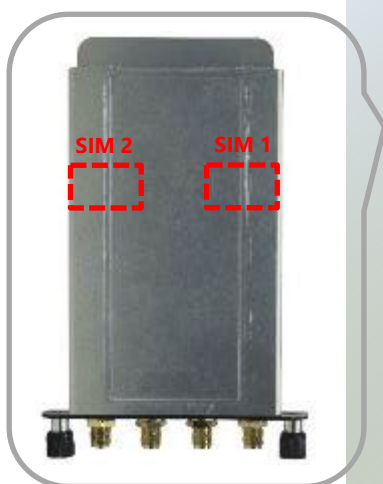
PGN-750 Module



Antennas

Installing SIM Cards

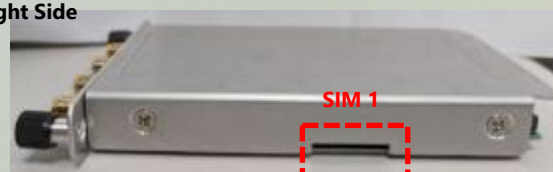
1. Locate the SIM card holder on the bottom sides (one right, one left) of the PGN module.



Left Side



Right Side



2. Insert and push the SIM card all the way in until it clicks into place.



3. To remove the SIM card, push the card once, and the card will automatically eject.

Installing PGN Module

1. Locate the PGN module slot on the front panel of the system. Unscrew the two (2) screws securing the cover.



2. Insert the PGN module.



3. Once the module is firmly seated, secure with the two (2) lock-screws.



4. Secure the four (4) antennas on the front side of the PGN module.



Wall Mounting

With the wall-mount kit, you can fix this system onto a flat surfaced wall. Please take the following into consideration when mounting the system onto the wall.

Check the kit contents for the following items:

- ▶ 1x pair of Wall Brackets
- ▶ 6x Screws (for the wall brackets)

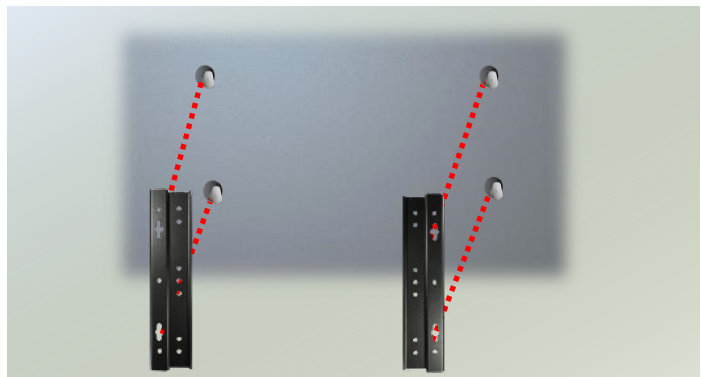


1. Turn the system over so the bottom is facing up; fix both wall brackets onto the system bottom with six (6) screws.

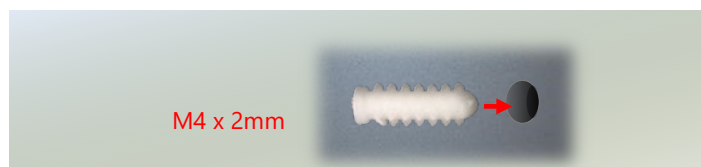


2. On the wall, measure the exact place where you want to hang the system and drill four holes.

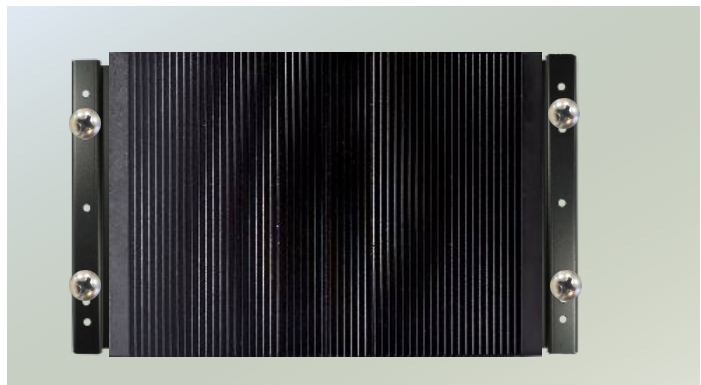
NOTE: The demonstrated screw type can fit in general drywall or shelves. Please identify the wall type and select the suitable fixing approach to secure this system to the wall, and consult a qualified trained person if you are unsure.



3. Insert the expansion anchor bolts into the holes



4. Drive four (4) long screws into the anchoring bolts to secure the system.



CHAPTER 3: SOFTWARE SETUP

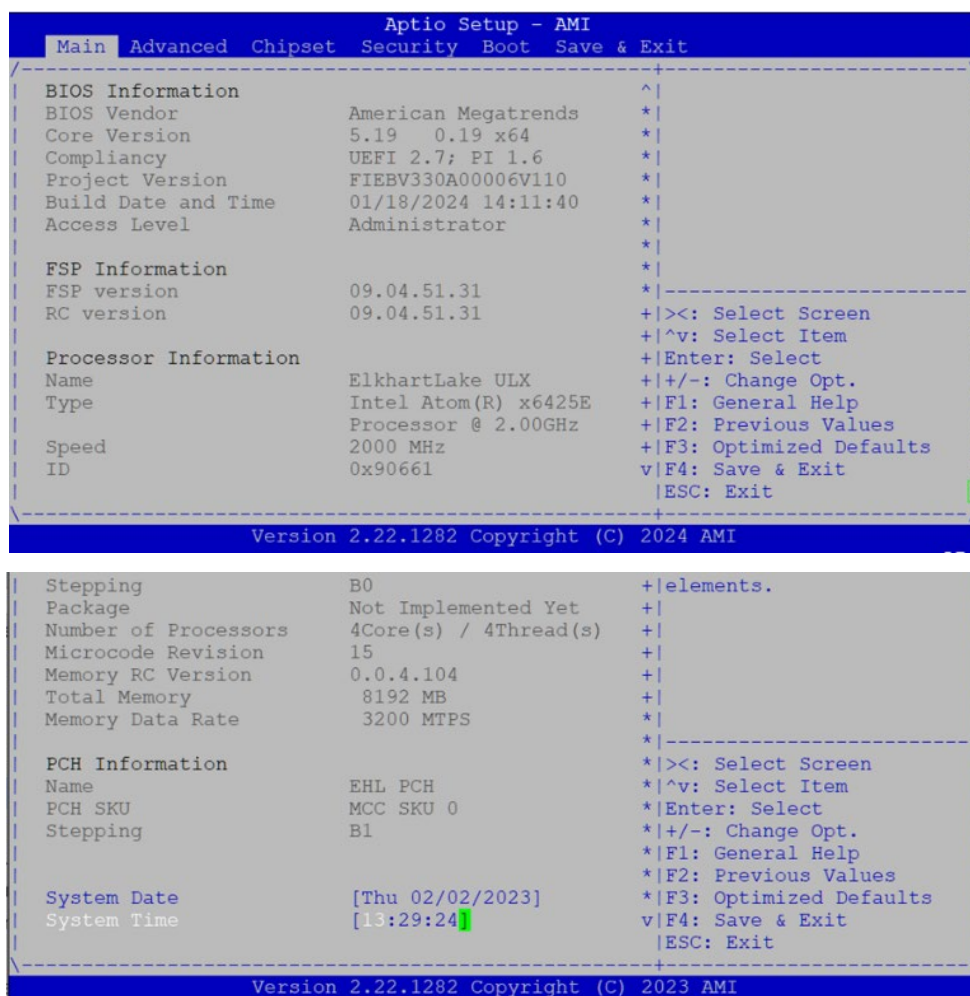
BIOS Setup

The system has AMI BIOS built-in, with a SETUP utility that allows users to configure required settings or to activate certain system features. Pressing the **<Tab>** or **** key immediately allows you to enter the Setup utility.

Control Keys	Description
→←	select a setup screen, for instance, [Main], [Advanced], [Chipset], [Security], [Boot], and [Save & Exit]
↑↓	select an item/option on a setup screen
<Enter>	select an item/option or enter a sub-menu
+/-	to adjust values for the selected setup item/option
F1	to display General Help screen
F2	to retrieve previous values, such as the parameters configured the last time you had entered BIOS.
F3	to load optimized default values
F4	to save configurations and exit BIOS
<Esc>	to exit the current screen

Main Page

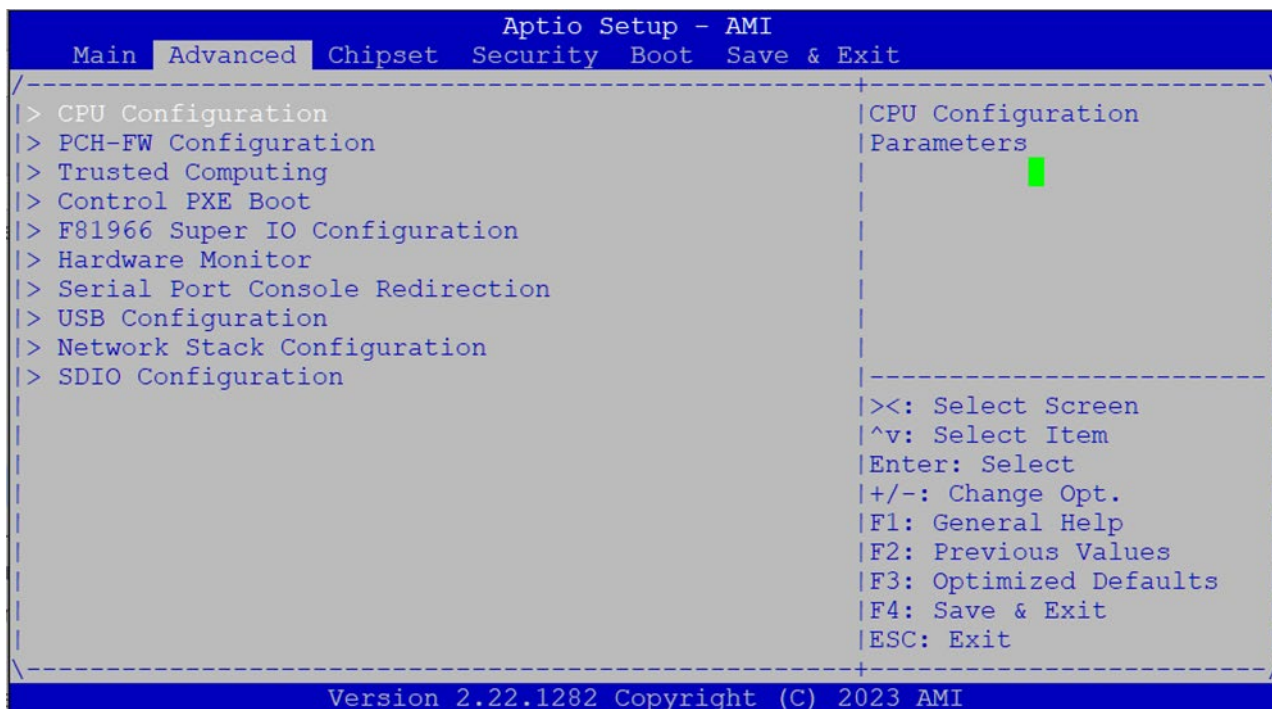
Setup main page contains BIOS information and project version information.



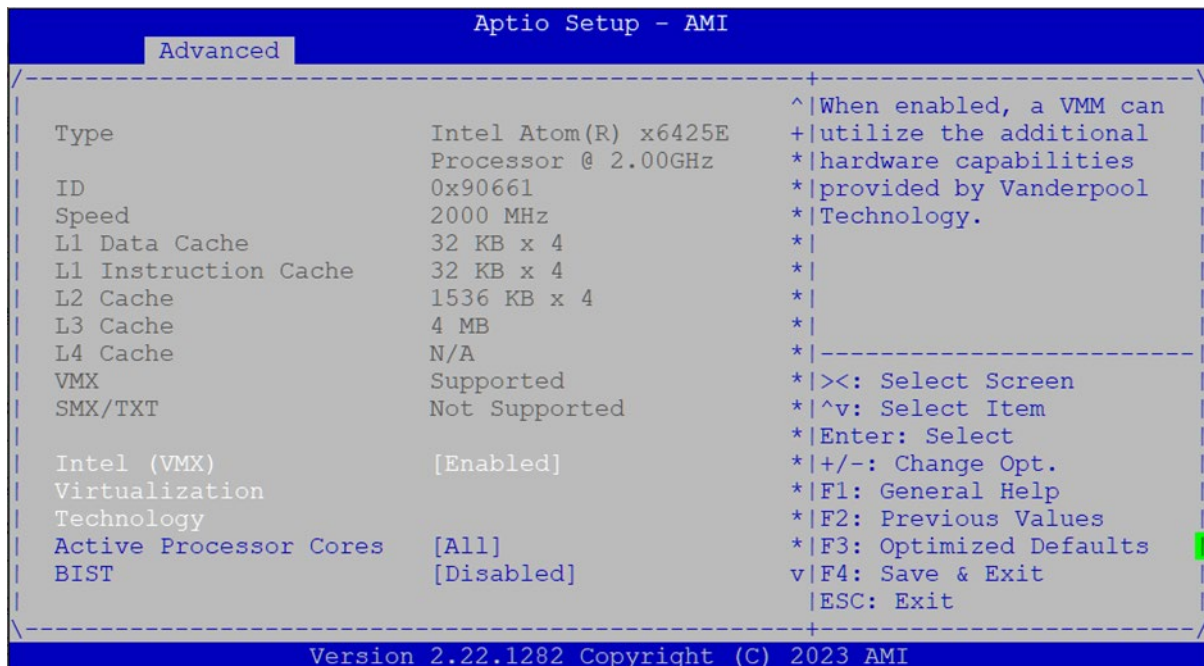
Feature	Description
BIOS Information	BIOS Vendor: American Megatrends Core Version: AMI Kernel version, CRB code base, X64 Compliancy: UEFI version, PI version Project Version: BIOS release version Build Date and Time: MM/DD/YYYY Access Level: Administrator / User
FSP Information	Intel FSP and RC version
Processor Information	Information of platform processor
PCH Information	Information of platform PCH
System Date	To set the Date, use <Tab> to switch between Date elements. Default Range of Year: 1998-9999 Default Range of Month: 1-12 Days: dependent on Month.
System Time	To set the Date, use <Tab> to switch between Date elements.

Advanced Page

Select the **Advanced** menu item from the BIOS setup screen to enter the “Advanced” setup screen. Users can select any of the items in the left frame of the screen.

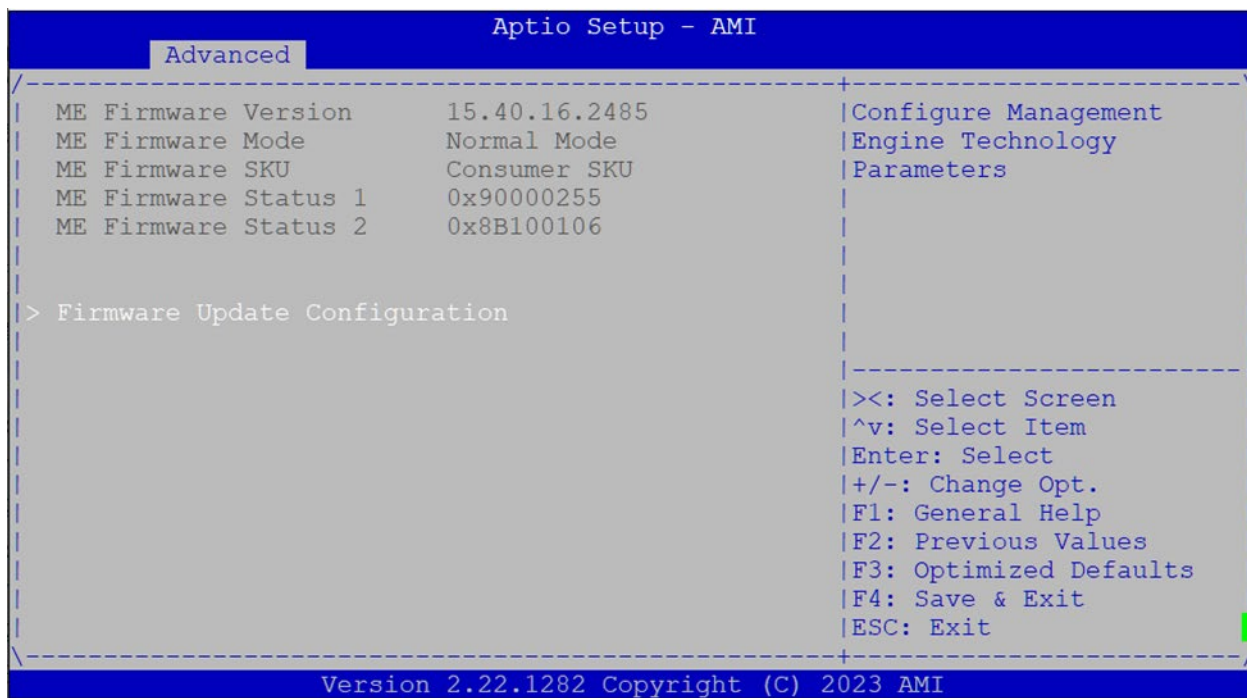


CPU Configuration

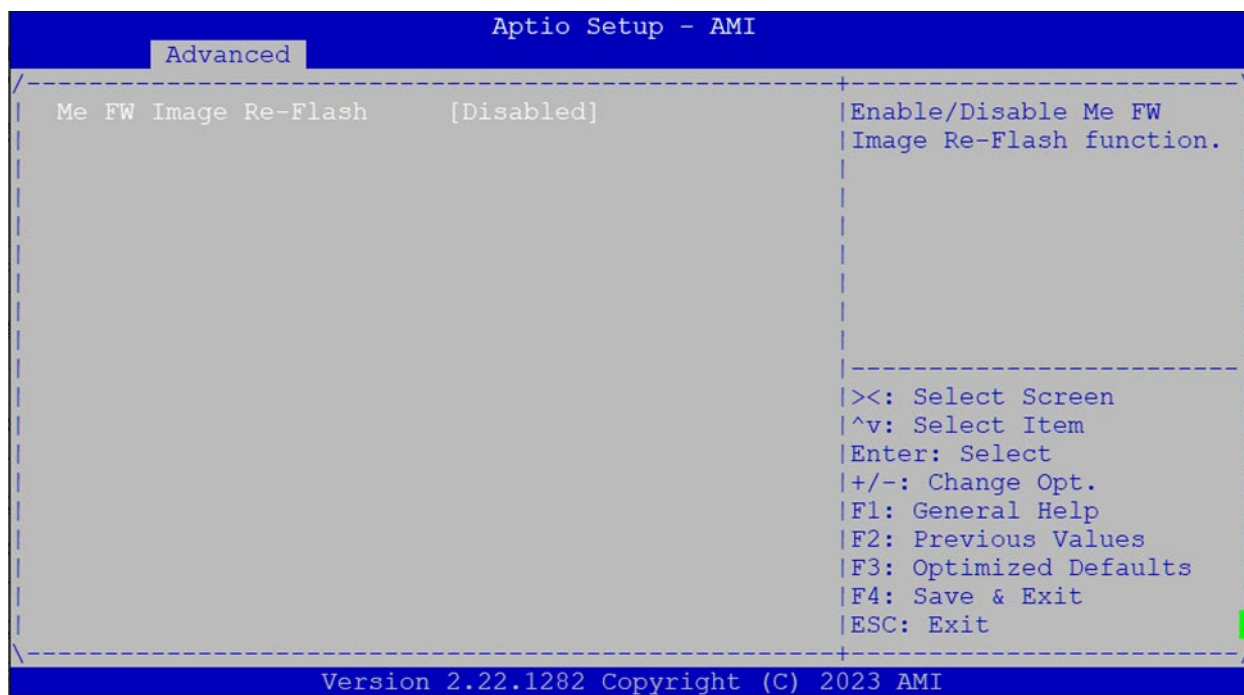


Feature	Options	Description
Intel (VMX) Virtualization Technology	Disabled Enabled	When enabled, a VMM can utilize the additional hardware capabilities provided by Vanderpool Technology.
Active Processor Cores	All 1 2 3	Number of cores to enable in each processor package.
BIST	Disabled Enabled	Enable/Disable BIST (Built-In Self Test) on reset
Intel (VMX) Virtualization Technology	Disabled Enabled	When enabled, a VMM can utilize the additional hardware capabilities provided by Vanderpool Technology.

PCH-FW Configuration

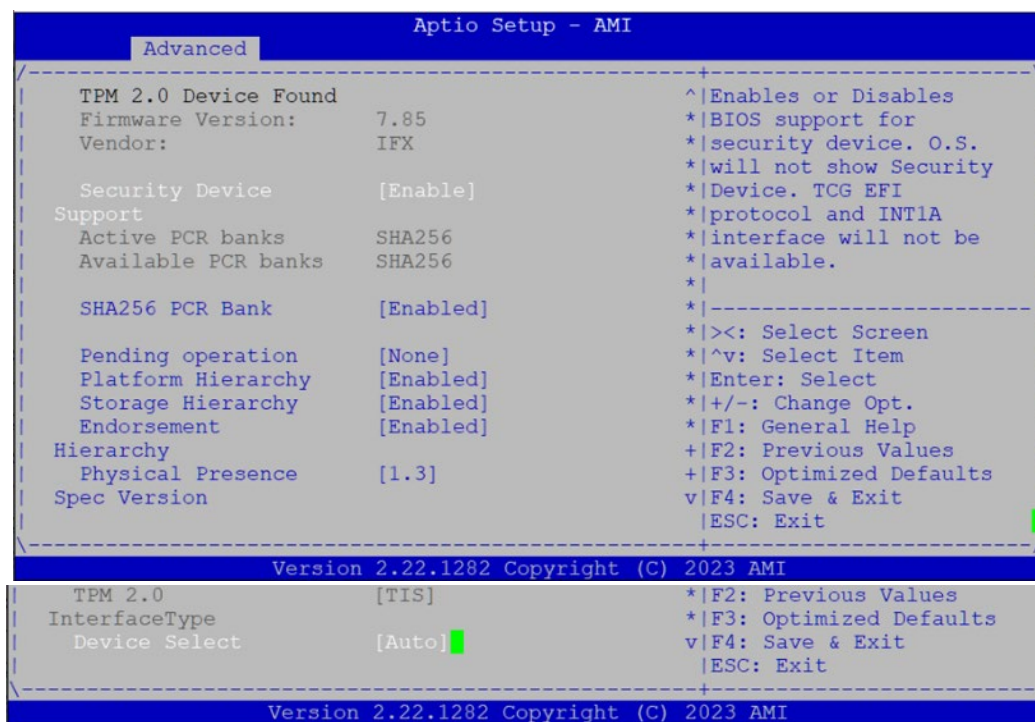


Firmware Update Configuration



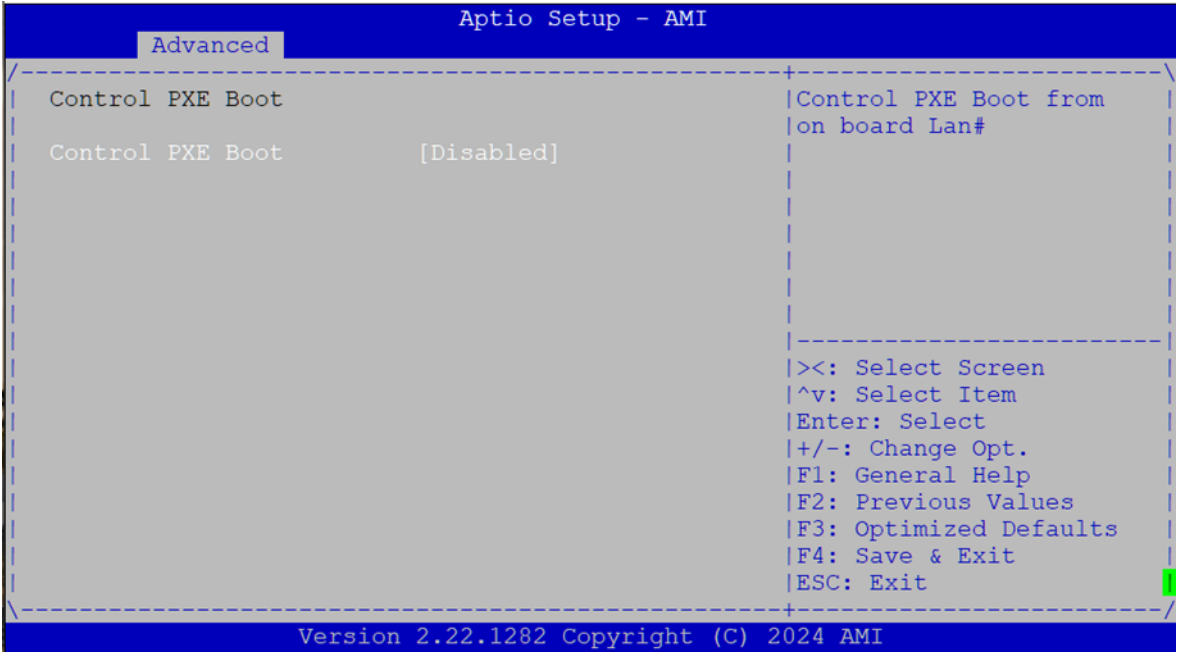
Feature	Options	Description
Me FW Image Re-Flash	Disabled Enabled	Enable/Disable Me FW Image Re-Flash function.

Trusted Computing



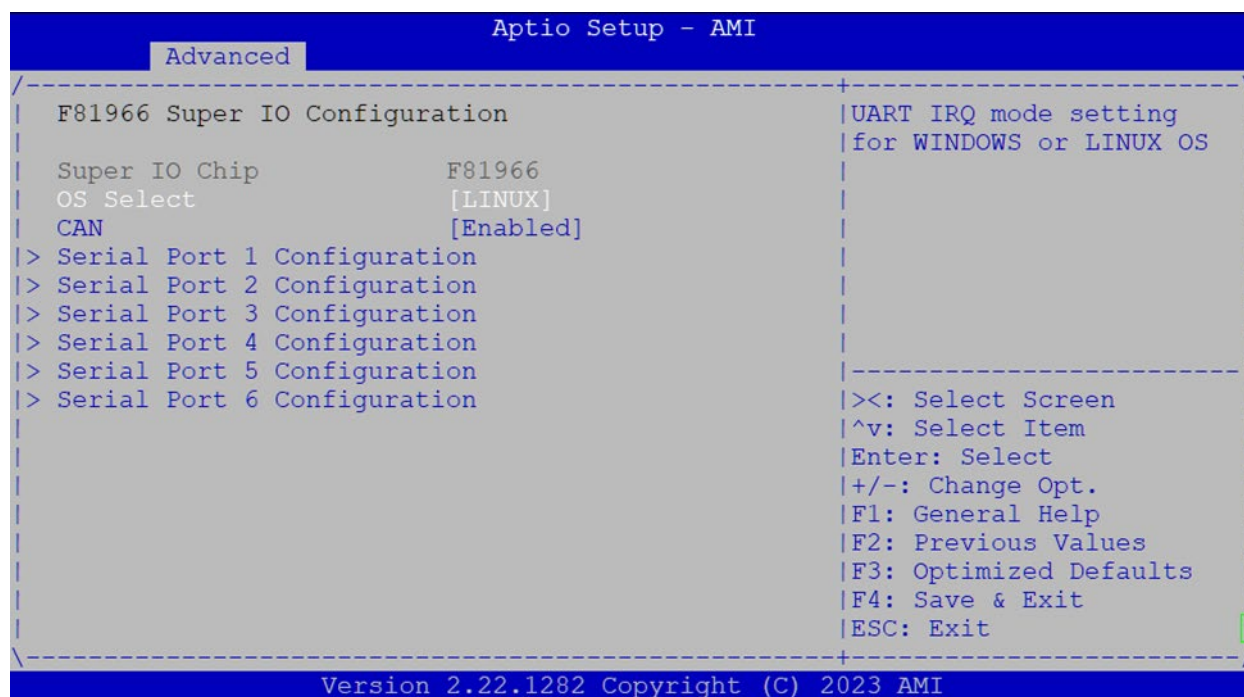
Feature	Options	Description
Security Device Support	Disable Enable	Enables or Disables BIOS support for security device. O.S. will not show Security Device. TCG EFI protocol and INT1A interface will not be available.
SHA256 PCR Bank	Disabled Enabled	Enable or Disable SHA256 PCR Bank
Pending operation	None TPM Clear	Schedule an Operation for the Security Device. NOTE: Your computer will reboot during restart to change State of Security Device.
Platform Hierarchy	Disabled Enabled	Enable or Disable Platform Hierarchy
Storage Hierarchy	Disabled Enabled	Enable or Disable Storage Hierarchy
Endorsement Hierarchy	Disabled Enabled	Enable or Disable Endorsement Hierarchy
Physical Presence Spec Version	1.2 1.3	Select to tell O.S. to support PPI Spec Version 1.2 or 1.3. NOTE: Some HCK tests might not support 1.3.
Device Select	TPM 1.2 TPM 2.0 Auto	TPM 1.2 will restrict support to TPM 1.2 devices, TPM 2.0 will restrict support to TPM 2.0 devices, Auto will support both with the default set to TPM 2.0 devices. If not found, TPM 1.2 devices will be enumerated.

Control PXE Boot



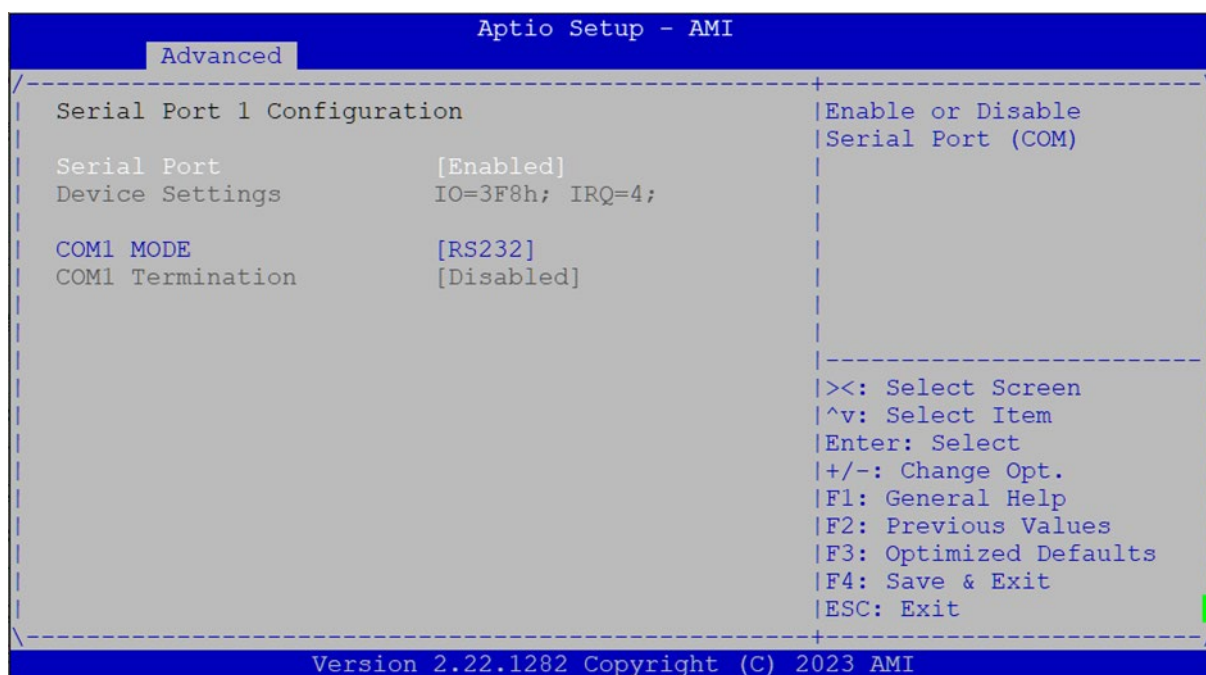
Feature	Options	Description
Control PXE Boot	Disabled	
	Lan1	Control PXE Boot from on board Lan#
	Lan2	

F81966 Super IO Configuration



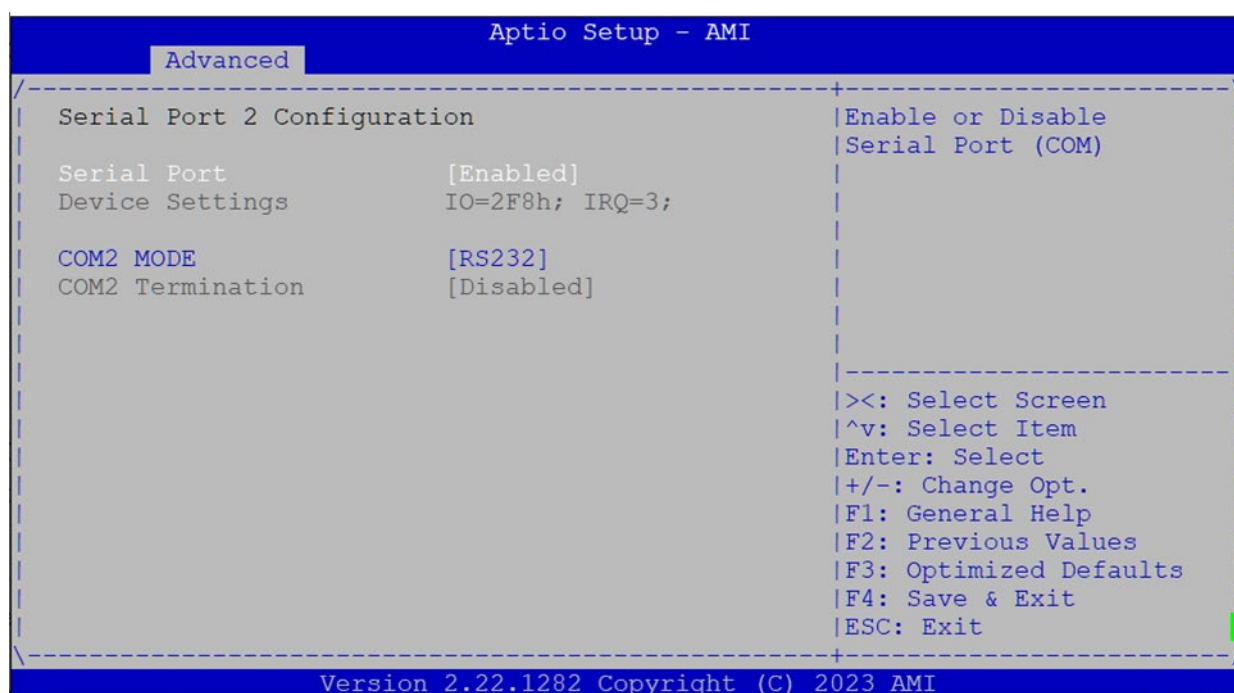
Feature	Options	Description
OS Select	WINDOWS LINUX	UART IRQ mode setting for WINDOWS or LINUX OS
CAN	Disabled Enabled	CAN enable or disable

Serial Port 1 Configuration



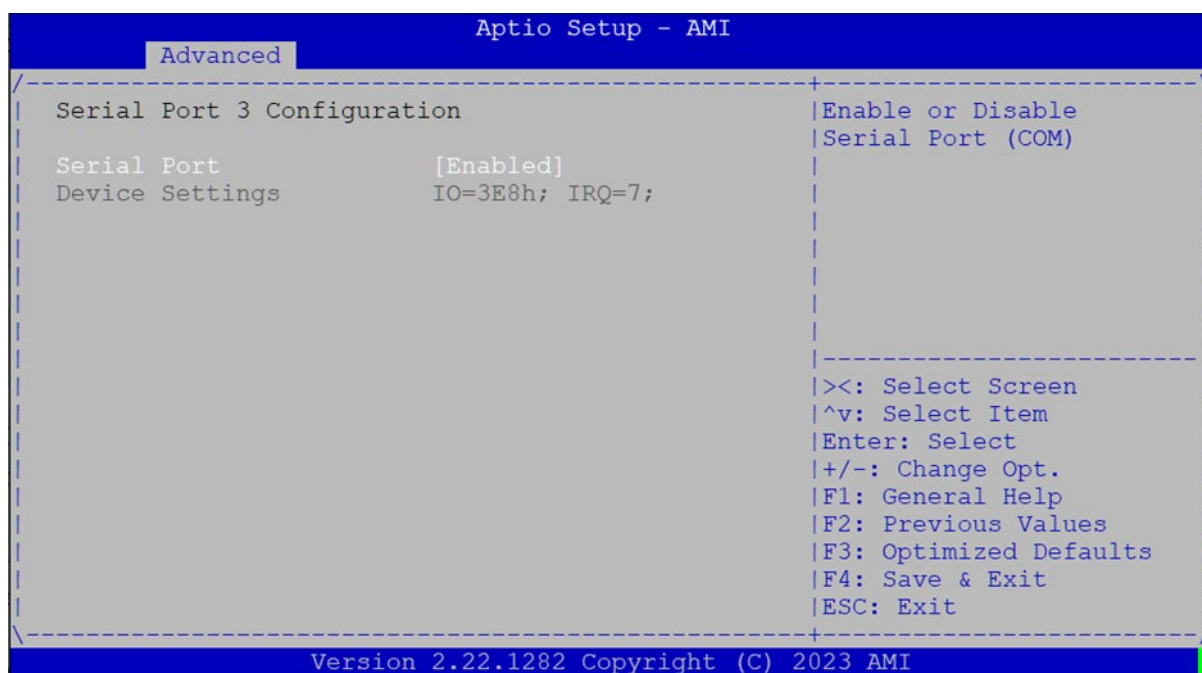
Feature	Options	Description
Serial Port	Disabled Enabled	Enable or Disable Serial Port (COM)
COM1 MODE	Loopback RS232 RS485 Half Duplex RS485/422 Full Duplex	Select Com Mode as RS232/RS485
COM1 Termination	Disabled Enabled	COM RS-422/485 Receiver Termination

Serial Port 2 Configuration



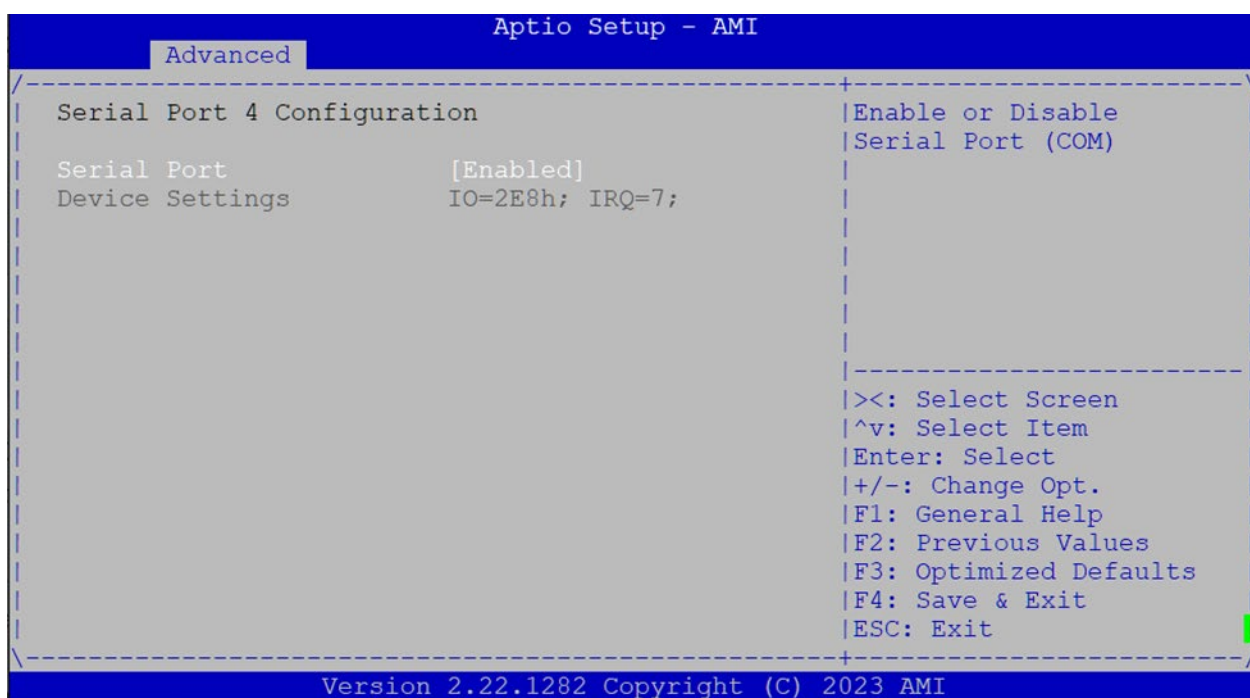
Feature	Options	Description
Serial Port	Disabled Enabled	Enable or Disable Serial Port (COM)
COM2 MODE	Loopback RS232 RS485 Half Duplex RS485/422 Full Duplex	Select Com Mode as RS232/RS485
COM2 Termination	Disabled Enabled	COM RS-422/485 Receiver Termination

Serial Port 3 Configuration



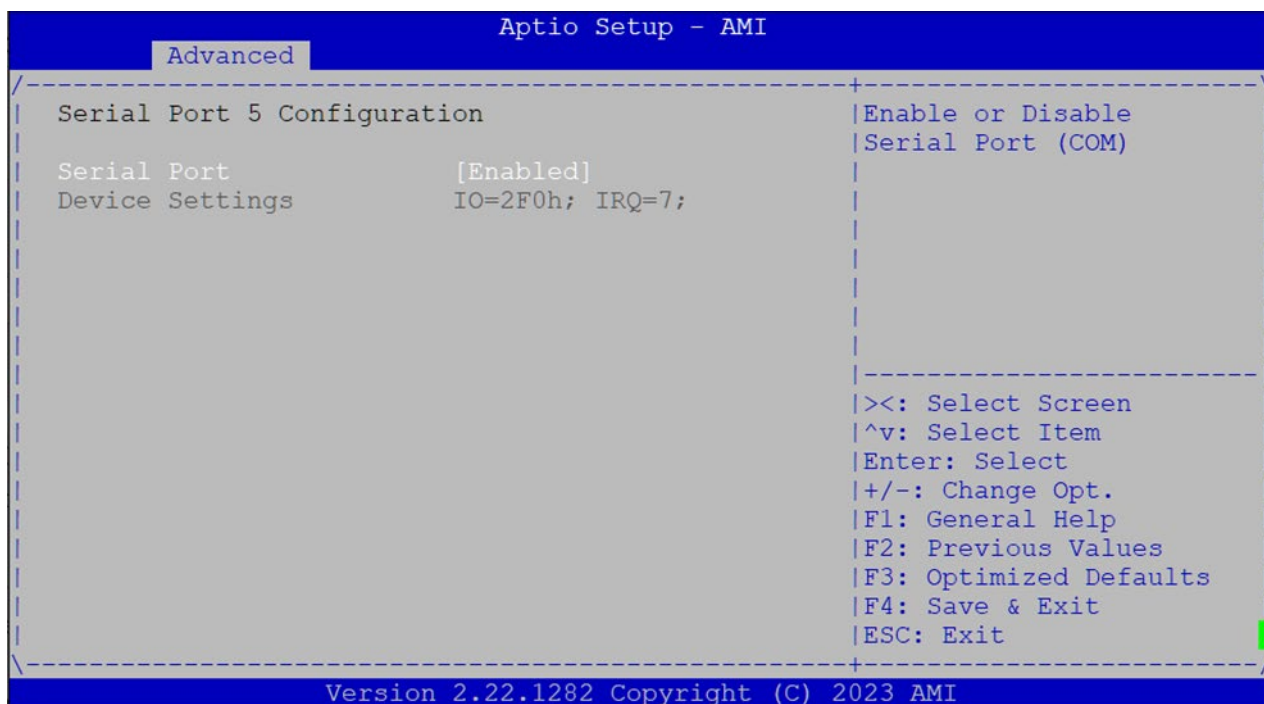
Feature	Options	Description
Serial Port	Disabled	Enable or Disable Serial Port (COM)
	Enabled	

Serial Port 4 Configuration



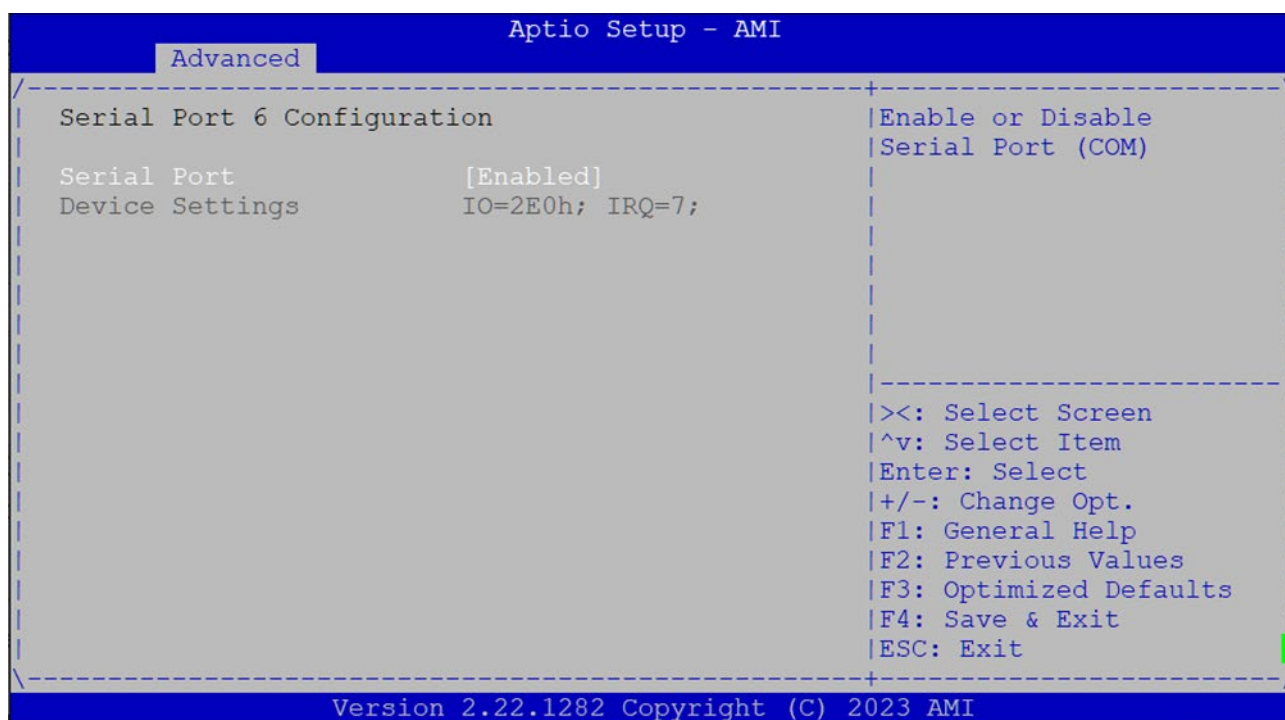
Feature	Options	Description
Serial Port	Disabled Enabled	Enable or Disable Serial Port (COM)

Serial Port 5 Configuration



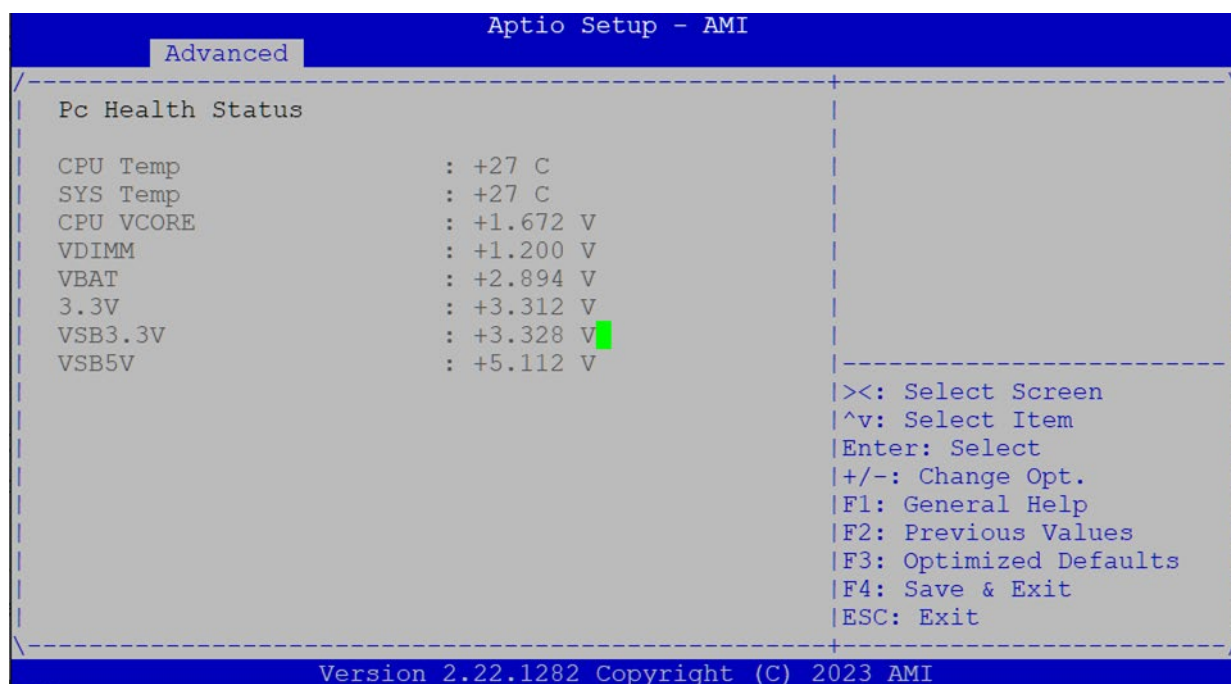
Feature	Options	Description
Serial Port	Disabled Enabled	Enable or Disable Serial Port (COM)

Serial Port 6 Configuration



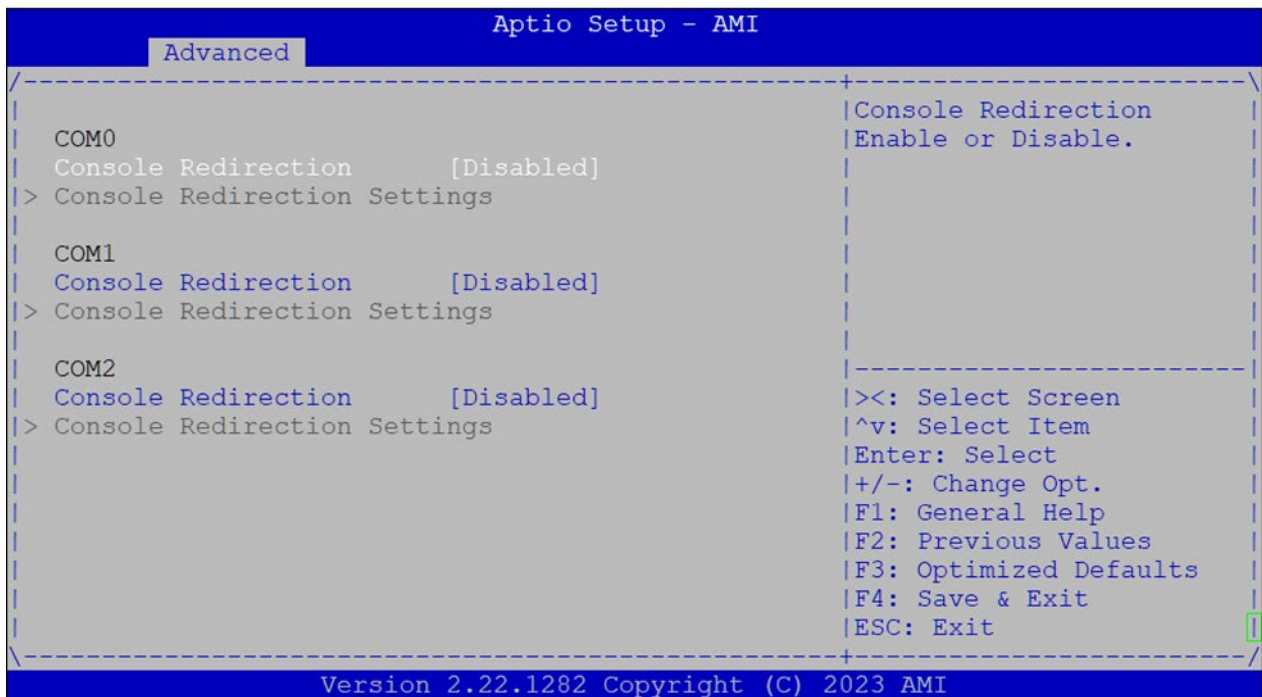
Feature	Options	Description
Serial Port	Disabled Enabled	Enable or Disable Serial Port (COM)

Hardware Monitor



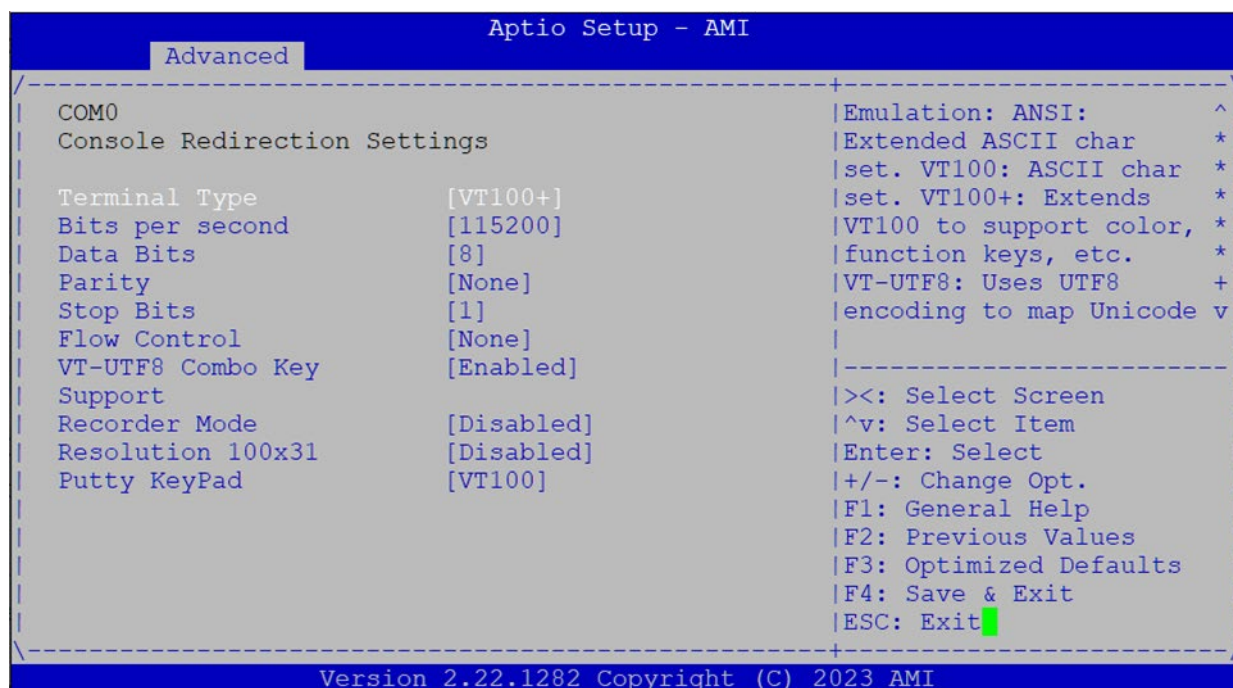
Feature	Description
CPU Temp	This value reports the CPU temperature.
SYS Temp	This value reports the System temperature.
CPU VCORE	This value reports the CPU VCORE Input voltage.
VDIMM	This value reports the VDIMM Input voltage.
VBAT	This value reports the VBAT Input voltage.
3.3V	This value reports the 3.3V Input voltage.
VSB3.3V	This value reports the VSB3.3V Input voltage.
VSB5V	This value reports the VSB5V Input voltage.

Serial Port Console Redirection



Feature	Options	Description
COM0 Console Redirection	Disabled Enabled	Console Redirection Enable or Disable
COM1 Console Redirection	Disabled Enabled	Console Redirection Enable or Disable
COM2 Console Redirection	Disabled Enabled	Console Redirection Enable or Disable

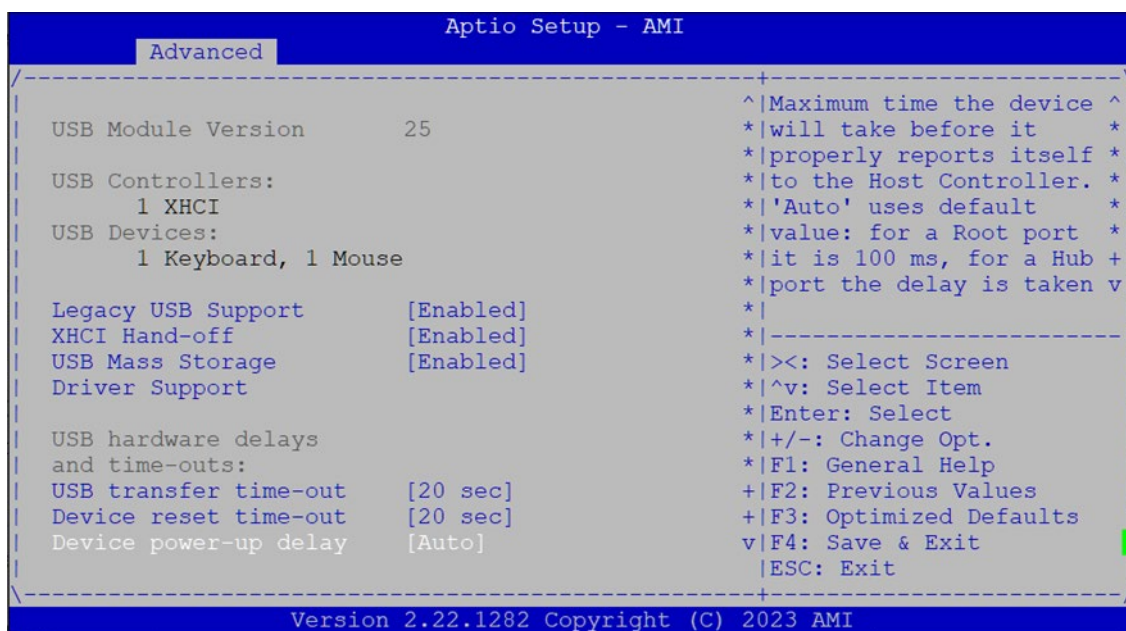
Console Redirection Settings



Feature	Options	Description
Terminal Type	VT100 VT100+ VT-UTF8 ANSI	Emulation: ANSI: Extended ASCII char set. VT100: ASCII char set. VT100+: Extends VT100 to support color, function keys, etc. VT-UTF8: Uses UTF8 encoding to map Unicode chars onto 1 or more bytes.
Bits per second	9600 19200 38400 57600 115200	Selects serial port transmission speed. The speed must be matched on the other side. Long or noisy lines may require lower speeds.
Data Bits	7 8	Data Bits
Parity	None Even Odd Mark Space	A parity bit can be sent with the data bits to detect some transmission errors.
Stop Bits	1 2	Stop bits indicate the end of a serial data packet.
Flow Control	None Hardware RTS/CTS	Flow control can prevent data loss from buffer overflow.
VT-UTF8 Combo	Disabled	Enable VT-UTF8 Combination Key Support for ANSI/VT100

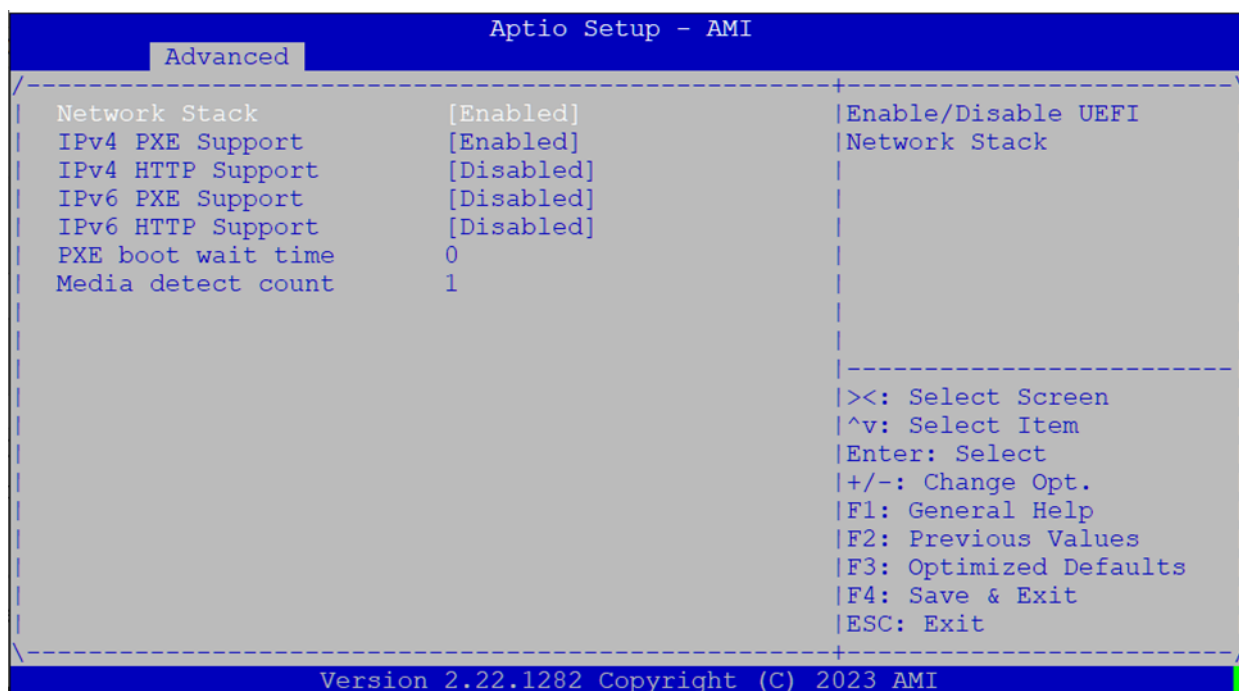
Key Support	Enabled	terminals
Recorder Mode	Disabled Enabled	With this mode enabled only text will be sent. This is to capture Terminal data.
Resolution 100x31	Disabled Enabled	Enables or disables extended terminal resolution.
Putty KeyPad	VT100 LINUX XTERMR6 SCO ESCN VT400	Select FunctionKey and KeyPad on Putty.

USB Configuration



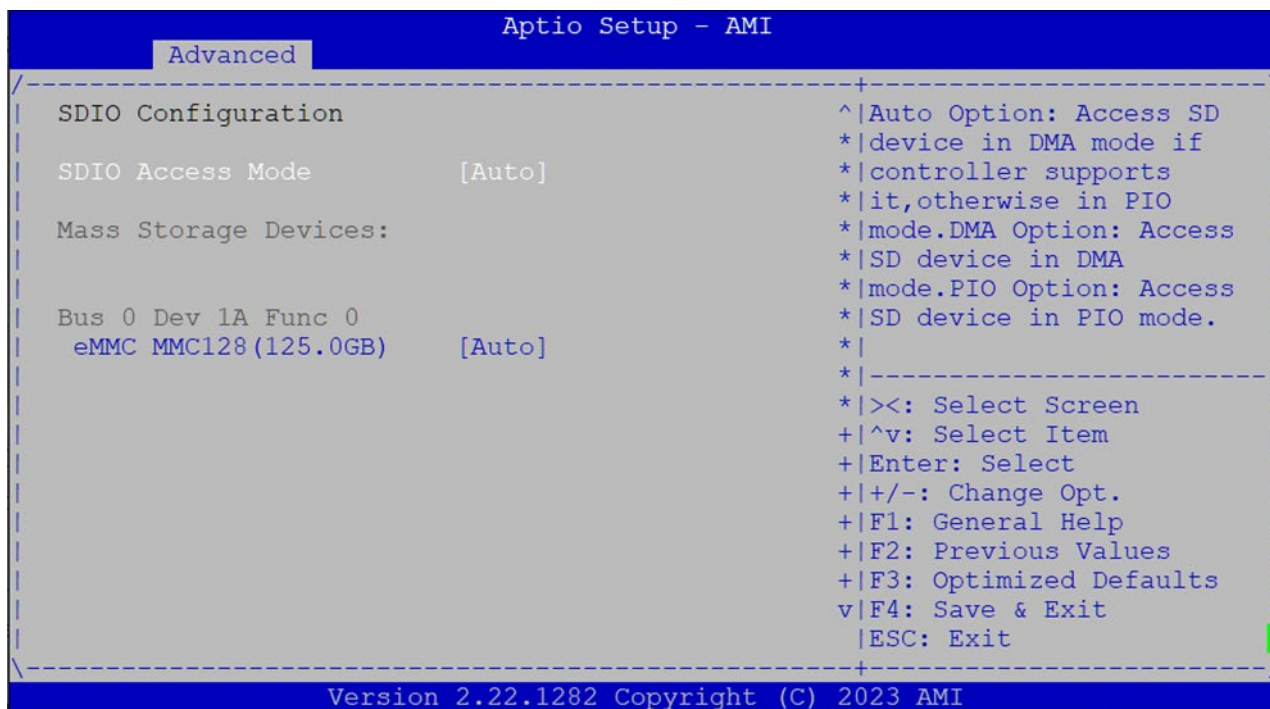
Feature	Options	Description
Legacy USB Support	Enabled Disabled Auto	Enables Legacy USB support. Auto option disables legacy support if no USB devices are connected. Disabled option will keep USB devices available only for EFI applications.
XHCI Hand-off	Enabled Disabled	This is a workaround for OSES without XHCI hand-off support. The XHCI ownership change should be claimed by XHCI driver.
USB Mass Storage Driver Support	Disabled Enabled	Enable/Disable USB Mass Storage Driver Support.
USB transfer time-out	1 sec 5 sec 10 sec 20 sec	The time-out value for Control, Bulk, and Interrupt transfers
Device reset time-out	10 sec 20 sec 30 sec 40 sec	USB mass storage device Start Unit command time-out
Device power-up delay	Auto Manual	Maximum time the device will take before it properly reports itself to the Host Controller. Auto uses default value: for a Root port, it is 100 ms, for a Hub port the delay is taken from Hub descriptor.

Network Stack Configuration



Feature	Options	Description
Network Stack select	Disabled Enabled	Enable/Disable UEFI Network Stack
IPv4 PXE Support	Disabled Enable	Enable/Disable IPv4 PXE boot support. If disabled, IPv4 PXE boot support will not be available.
IPv4 HTTP Support	Disabled Enable	Enable/Disable IPv4 HTTP boot support. If disabled, IPv4 HTTP boot support will not be available.
IPv6 PXE Support	Disabled Enable	Enable/Disable IPv6 PXE boot support. If disabled, IPv6 PXE boot support will not be available.
IPv6 HTTP Support	Disabled Enable	Enable/Disable IPv6 HTTP boot support. If disabled, IPv6 HTTP boot support will not be available.
PXE boot wait time	0	Wait time in seconds to press ESC key to abort the PXE boot. Use either +/- or numeric keys to set the value.
Media detect count	1	Number of times the presence of media will be checked. Use either +/- or numeric keys to set the value.

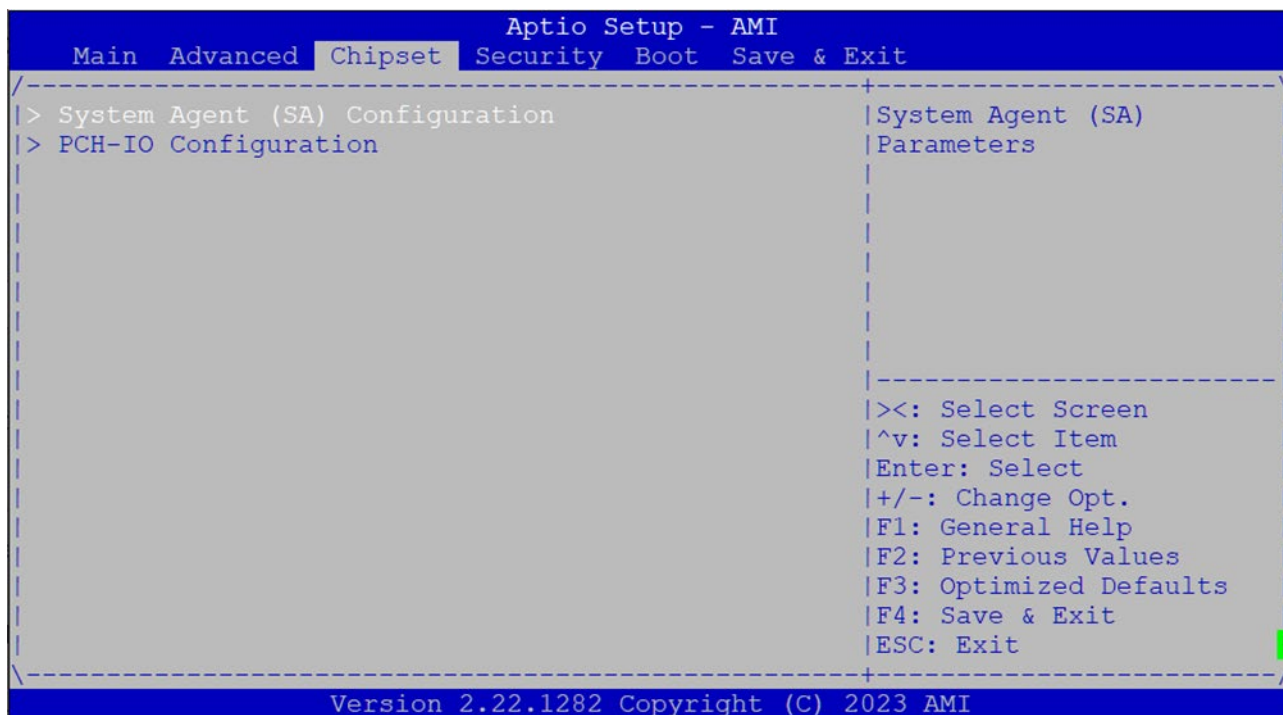
SDIO Configuration



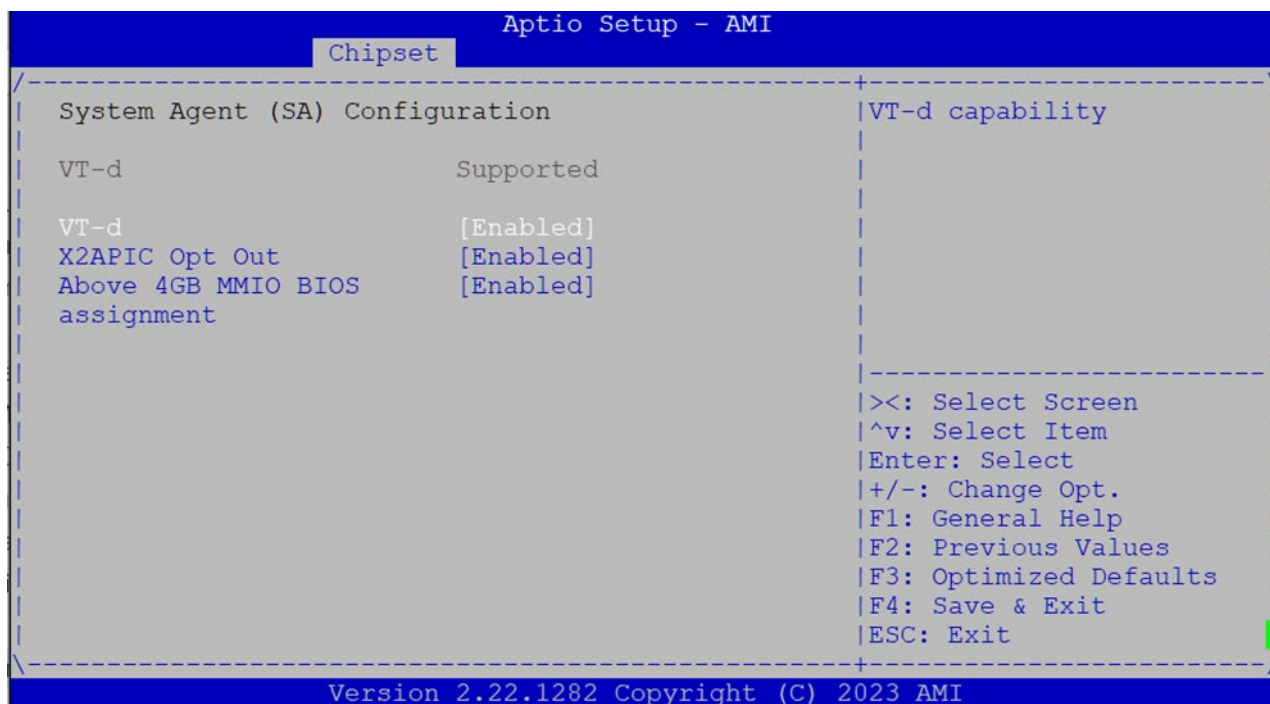
Feature	Options	Description
SDIO Access Mode	Auto	Auto Option: Access SD device in DMA mode if controller supports it, otherwise in PIO mode.
	ADMA	
	SDMA	DMA Option: Access SD device in DMA mode.
	PIO	PIO Option: Access SD device in PIO mode.

Chipset

Select the Chipset menu item from the BIOS setup screen to enter the "Chipset" setup screen. Users can select any of the items in the left frame of the screen.

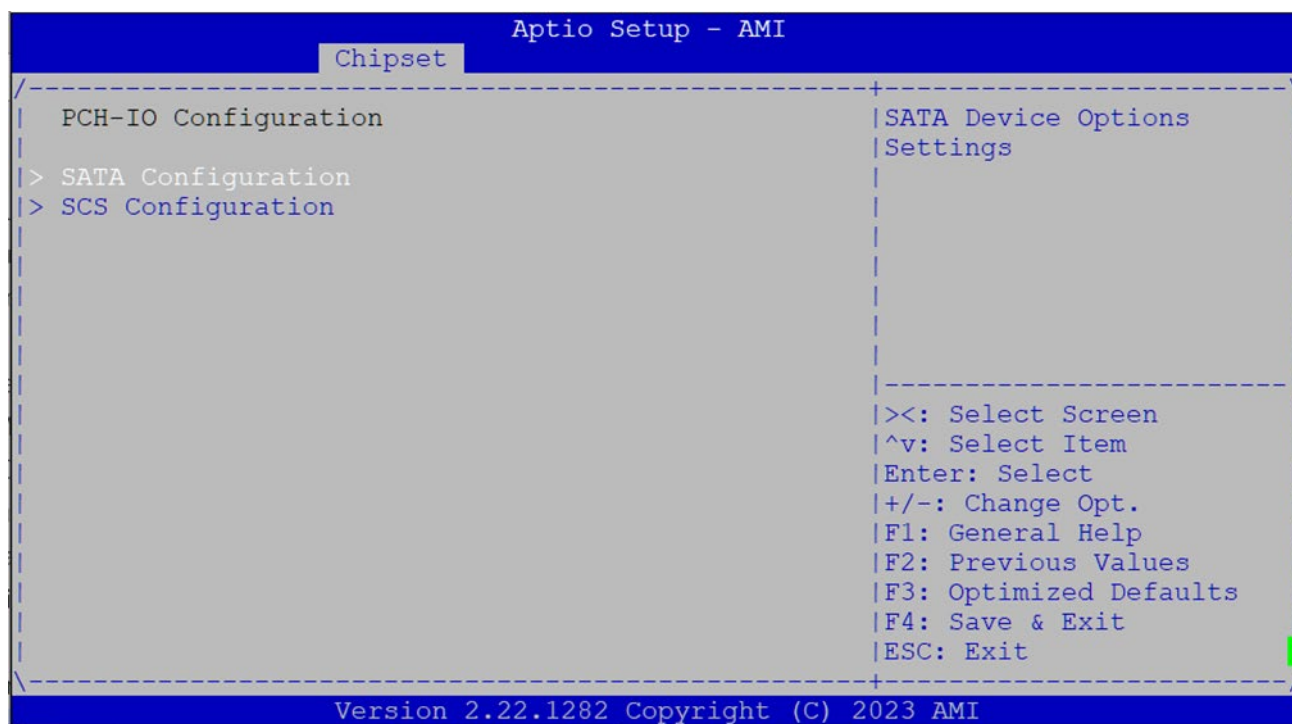


System Agent (SA) Configuration

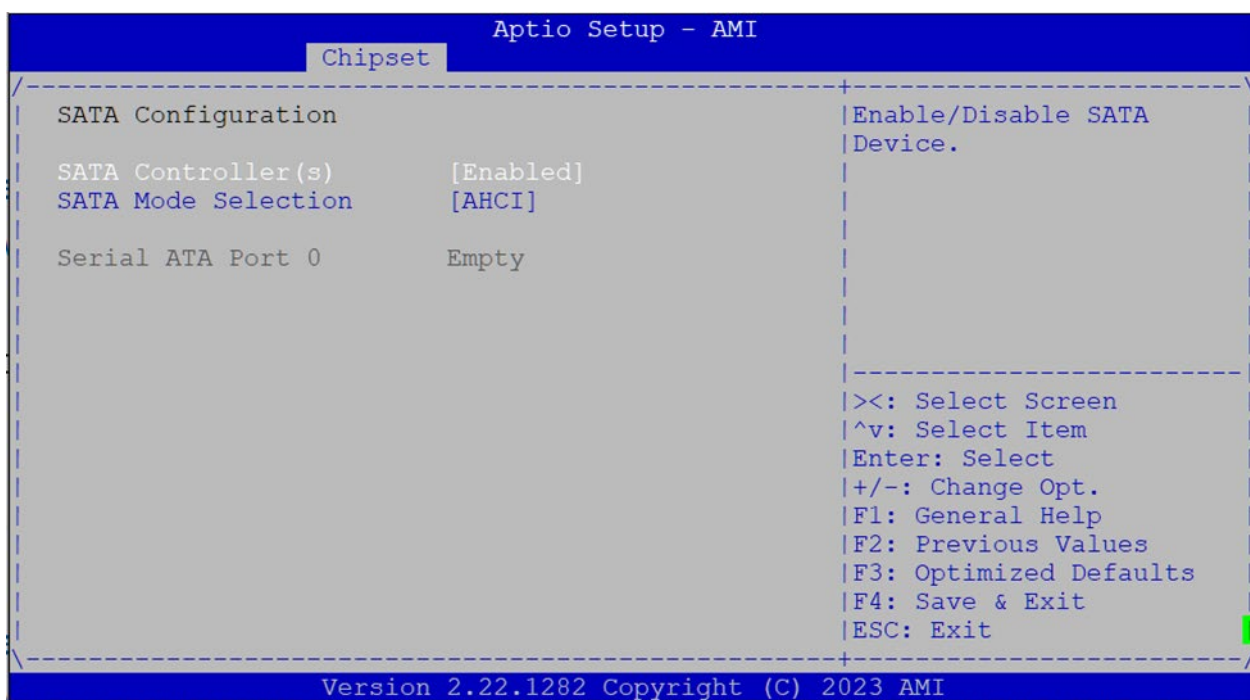


Feature	Options	Description
VT-d	Disabled Enabled	VT-d capability
X2APIC Opt Out	Enabled Disabled	Enable/Disable X2APIC_OPT_OUT bit
Above 4GB MMIO BIOS assignment	Enabled Disabled	Enable/Disable above 4GB MemoryMappedIO BIOS assignment This is disabled automatically when Aperture Size is set to 2048MB

PCH-IO Configuration

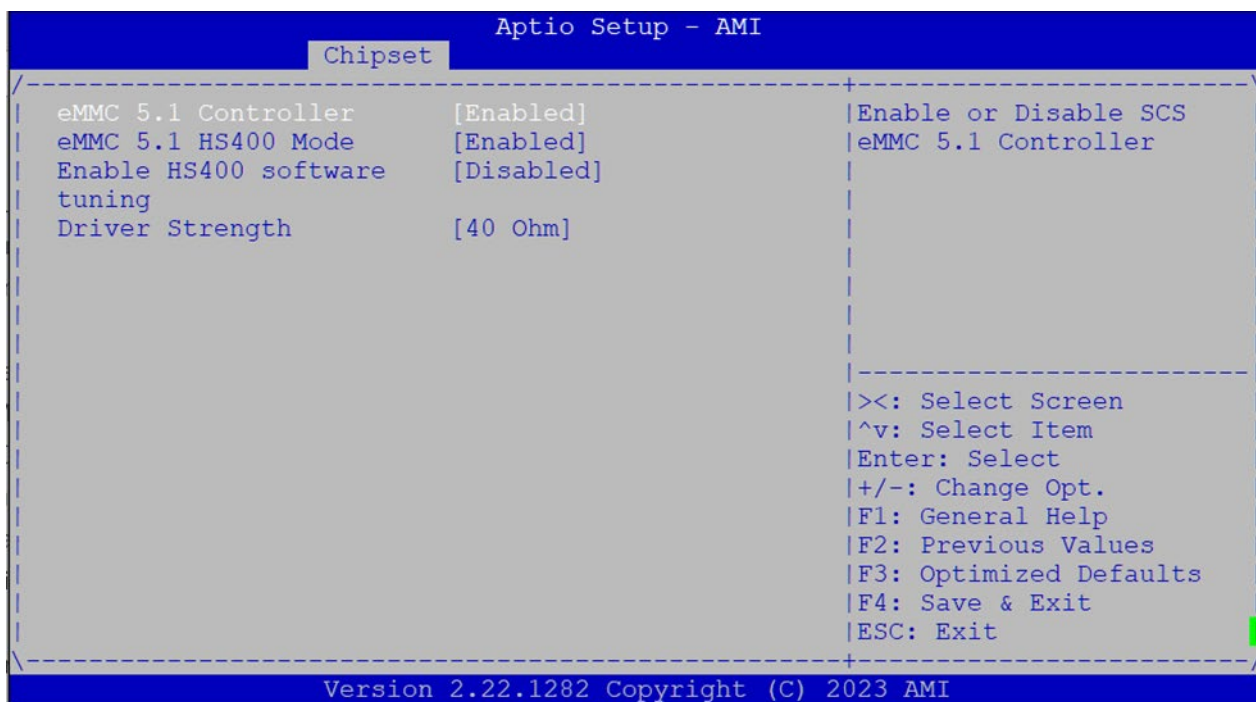


SATA Configuration



Feature	Options	Description
SATA Controller(s)	Enabled Disabled	Enable/Disable SATA Device.
SATA Mode Selection	AHCI	Determines how SATA controller(s) operate.

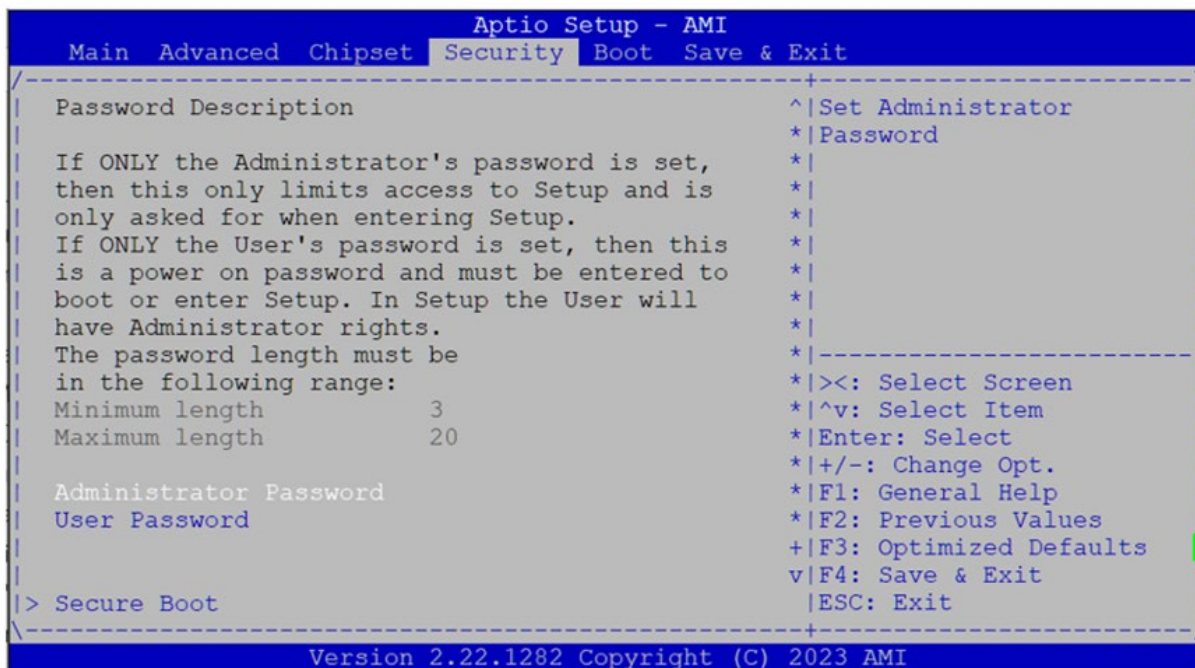
SCS Configuration



Feature	Options	Description
eMMC 5.1 Controller	Disabled Enabled	Enable or Disable SCS eMMC 5.1 Controller
eMMC 5.1 HS400 Mode	Disabled Enabled	Enable or Disable SCS eMMC 5.1 HS400 Mode
Enable HS400 software tuning	Disabled Enabled	Software tuning should improve eMMC HS400 stability at the expense of boot time
Driver Strength	33 Ohm 40 Ohm 50 Ohm	Sets I/O driver strength

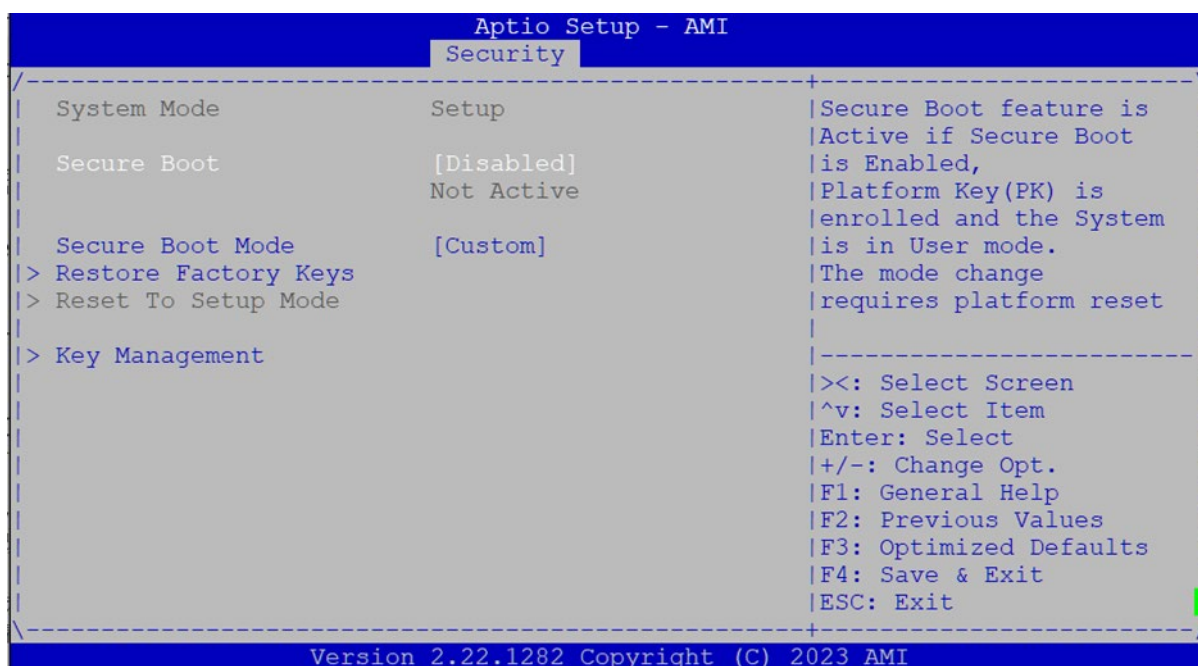
Security

Select the Security menu item from the BIOS setup screen to enter the "Security" setup screen. Users can select any of the items in the left frame of the screen.



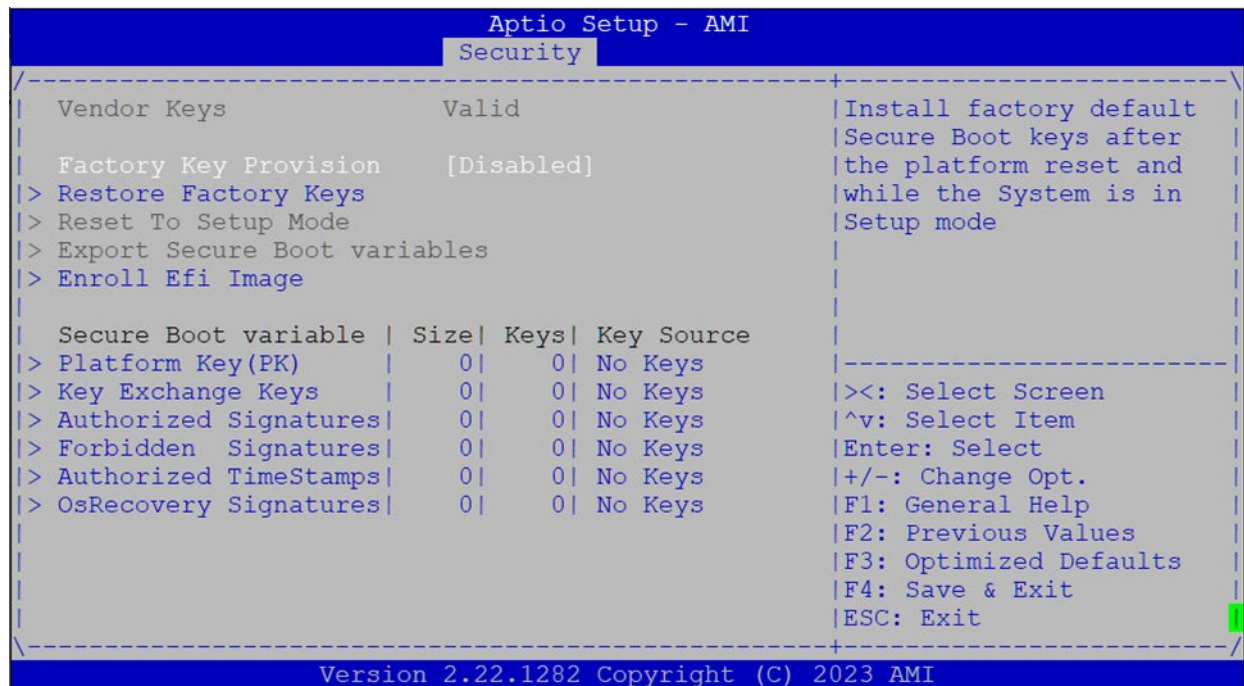
Feature	Description
Setup Administrator Password	If ONLY the Administrator's password is set, it only limits access to Setup and is only asked for when entering Setup.
User Password	If ONLY the User's password is set, it serves as a power-on password and must be entered to boot or enter Setup. In Setup, the User will have Administrator rights.

Secure Boot



Feature	Options	Description
Secure Boot	Disabled Enabled	Secure Boot feature is Active if Secure Boot is Enabled, Platform Key (PK) is enrolled and the System is in User mode. The mode change requires platform reset
Secure Boot Mode	Standard Custom	Secure Boot mode options: Standard or Custom. In Custom mode, Secure Boot Policy variables can be configured by a physically present user without full authentication

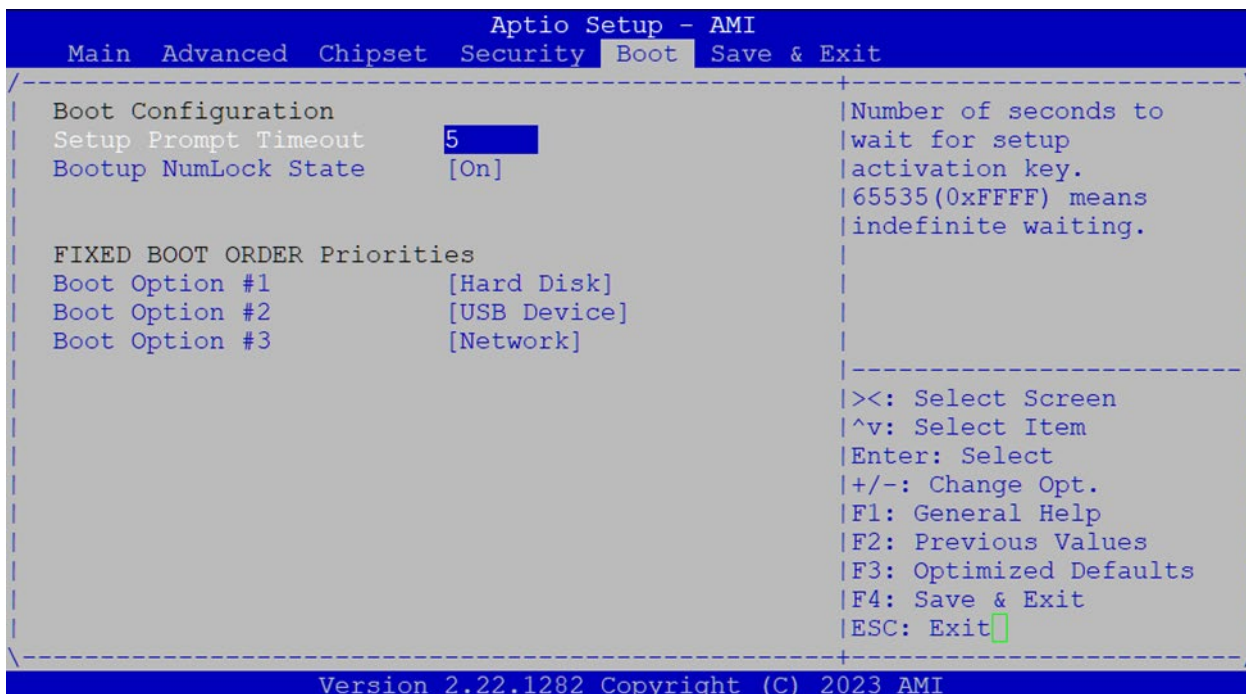
Key Management



Feature	Options	Description
Factory Key Provision	Disabled Enabled	Install factory default Secure Boot keys after the platform reset and while the System is in Setup mode
Restore Factory Keys	None	Force System to User Mode. Install factory default Secure Boot key databases
Reset to Setup Mode	None	Delete all Secure Boot key databases from NVRAM
Export Secure Boot variables	None	Copy NVRAM content of Secure Boot variables to files in a root folder on a file system device
Enroll Efi Image	None	Allow the image to run in Secure Boot mode. Enroll SHA256 Hash certificate of a PE image into Authorized Signature Database (db)

Boot Menu

Select the Boot menu item from the BIOS setup screen to enter the "Boot" setup screen. Users can select any of the items in the left frame of the screen.

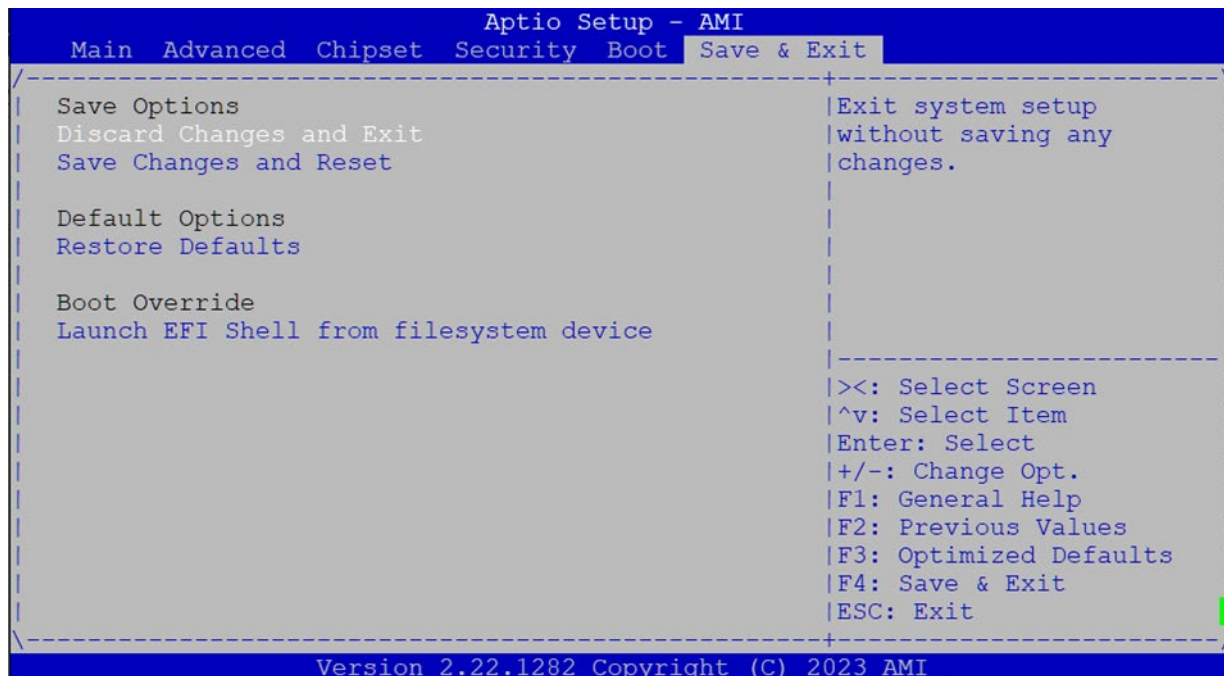


Feature	Options	Description
Setup Prompt Timeout	5	The number of seconds to wait for setup activation key. 65535 means indefinite waiting.
Bootup NumLock State	On Off	Select the keyboard NumLock state

- Choose boot priority from boot option group.
- Choose specifies boot device priority sequence from available Group device.

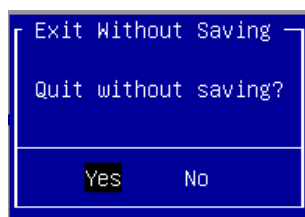
Save and Exit Menu

Select the **Save and Exit** menu item from the BIOS setup screen to enter the "Save and Exit" setup screen. Users can select any of the items in the left frame of the screen.



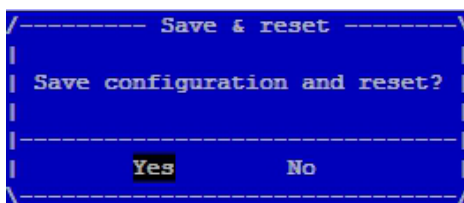
■ Discard Changes and Exit

Select this option to quit Setup without saving any modifications to the system configuration. The following window will appear after the "**Discard Changes and Exit**" option is selected. Select "**Yes**" to Discard changes and Exit Setup.



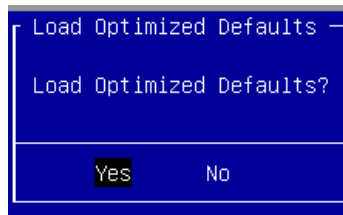
■ Save Changes and Reset

When Users have completed the system configuration changes, select this option to save the changes and reset from BIOS Setup for the new system configuration parameters to take effect. The following window will appear after selecting the "**Save Changes and Reset**" option is selected. Select "**Yes**" to Save Changes and reset.



■ Restore Defaults

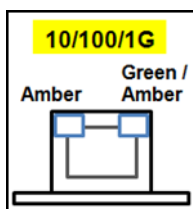
Restore default values for all setup options. Select **“Yes”** to load Optimized defaults.



Note: The items under Boot Override may not be the same, as it would depend on the actual devices connected on the system.

APPENDIX A: LED INDICATOR EXPLANATIONS

► RJ45 LAN LED



Speed	Amber (Link/Active)	Green/Amber (Speed)
10M	ON / Blinking (Data Access)	OFF
100M	ON / Blinking (Data Access)	ON (Green)
1G	ON / Blinking (Data access)	ON (Amber)

1. When cable is plugged-in and network is linked. Both LED lights will be bright. The behavior is as defined.
2. Without the cable plugged-in, the LED should be off
3. If LAN Driver controls the LED, the behavior will follow the driver

APPENDIX B: TERMS AND CONDITIONS

Warranty Policy

1. All products are under warranty against defects in materials and workmanship for a period of one year from the date of purchase.
2. The buyer will bear the return freight charges for goods returned for repair within the warranty period; whereas the manufacturer will bear the after-service freight charges for goods returned to the user.
3. The buyer will pay for the repair (for replaced components plus service time) and transportation charges (both ways) for items after the expiration of the warranty period.
4. If the RMA Service Request Form does not meet the stated requirement as listed on "RMA Service," RMA goods will be returned at customer's expense.
5. The following conditions are excluded from this warranty:
 - ▶ Improper or inadequate maintenance by the customer
 - ▶ Unauthorized modification, misuse, or reversed engineering of the product
 - ▶ Operation outside of the environmental specifications for the product.

RMA Service

Requesting an RMA#

1. To obtain an RMA number, simply fill out and fax the "RMA Request Form," to your supplier.
2. The customer is required to fill out the problem code as listed. If your problem is not among the codes listed, please write the symptom description in the remarks box.
3. Ship the defective unit(s) on freight prepaid terms. Use the original packing materials when possible.
4. Mark the RMA# clearly on the box.

Note: Customer is responsible for shipping damage(s) resulting from inadequate/loose packing of the defective unit(s). All RMA# are valid for 30 days only; RMA goods received after the effective RMA# period will be rejected.

RMA Service Request Form

When requesting RMA service, please fill out the following form. Without this form enclosed, your RMA cannot be processed.

RMA No.:		Reasons to Return: <input type="checkbox"/> Repair(Please include failure details)	
		<input type="checkbox"/> Testing Purpose	
Company:		Contact Person:	
Phone No.		Purchased Date:	
Fax No.:		Applied Date:	
Return Shipping Address: _____			
Shipping by: <input type="checkbox"/> Air Freight <input type="checkbox"/> Sea <input type="checkbox"/> Express_____			
<input type="checkbox"/> Others:_____			
Item	Model Name	Serial Number	Configuration

Item	Problem Code	Failure Status

*Problem Code:

01:D.O.A.	07: BIOS Problem	13: SCSI	19: DIO
02: Second Time	08: Keyboard Controller Fail	14: LPT Port	20: Buzzer
R.M.A.	09: Cache RMA Problem	15: PS2	21: Shut Down
03: CMOS Data Lost	10: Memory Socket Bad	16: LAN	22: Panel Fail
04: FDC Fail	11: Hang Up Software	17: COM Port	23: CRT Fail
05: HDC Fail	12: Out Look Damage	18: Watchdog Timer	24: Others (Pls specify)
06: Bad Slot			

Request Party

Confirmed By Supplier

Authorized Signature / Date

Authorized Signature / Date