Lanner

Industrial Embedded Platforms

Intelligent Edge Computing Solutions for Smart City

LEC-7242
User Manual

Version: 1.9

Date of Release:2023-06-15

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 Description

The icons are used in the manual to serve as an indication of interest topics or important messages. Below is a description of these icons.

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 be registered for a Lanner Account at http://www.lannerinc.com/ to access published documents and downloadable resources.

Technical Support

In addition to contacting your distributor or sales representative, you could submit a request at our **Lanner Technical Support** and fill in a support ticket to our technical support department.

Documentation Feedback

Your feedback is valuable to us, as it will help us continue to provide you with more accurate and relevant documentation. To provide any feedback, comments or to report an error, please email to contact@lannerinc.com, Thank you for your time.

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Federal Communication Commission Interference Statement

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.

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 the battery is replaced by an incorrect type.
- Dispose of used batteries according to the instructions.
- Installation should be conducted only by a trained electrician or only by an electrically trained person who knows all installation procedures 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 environment can result in an explosion or the leakage of flammable liquid or gas.
- A battery subjected to extremely low air pressure may result in an explosion or the leakage of flammable liquid or 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 Precautions

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 (Tma) 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).

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.

- This equipment must be grounded. The power cord for product should be connected to a socket-outlet with earthing connection.
- Suitable for installation in Information Technology Rooms in accordance with Article 645 of the National Electrical Code and NFPA 75.
- The machine can only be used in a restricted access location and has installation instructions by a skilled person.

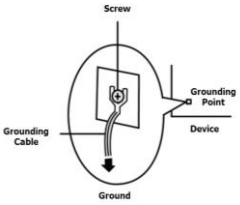
Consignes de sécurité électrique

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.

- Cet équipement doit être mis à la terre. La fiche d'alimentation doit être connectée à une prise de terre correctement câblée
- 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.
- Les matériels sont destinés à être installés dans des EMPLACEMENTS À ACCÈS RESTREINT.

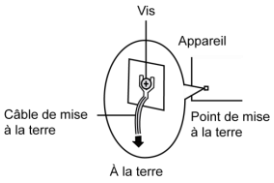
Grounding Procedure for DC Power Source

- Connect the grounding cable to the ground.
- The protection device for the DC power source must provide 30 A current.
- This protection device must be connected to the power source before DC power.



Procédure de mise à la terre pour source d'alimentation CC

- Branchez le câble de mise à la terre à la terre.
- L'appareil de protection pour la source d'alimentation CC doit fournir 30 A de courant.
- Cet appareil de protection doit être branché à la source d'alimentation avant l'alimentation CC.



Important

1. The appliance is only to be connected to network without routing to outside plant.
2. Instruction for the installation of the conductor to building earth by a skilled person.

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CHAPTER 1: PRODUCT OVERVIEW

The LEC-7242 is an industrial environment gateway IPC with Intel® Apollo Lake CPU. This wireless gateway with FCC/CE/PTCRB certification for LTE or Wifi is designed for IoT/IIoT edge, wireless security and multi-site management solution deployment in commercial, enterprise and public sector applications.

Package Content

Your package contains the following items:

- 1 x LEC-7242 IOT Gateway
- 1 x 60W Power Adaptor

Ordering Information

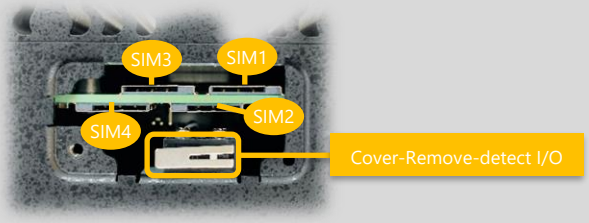
SKU No.	Main Features
LEC-7242A	Commercial Grade (OP Temp 0~50C), Intel® Celeron® N3350, 8GB LPDDR4 Memory, 1x SATA 2.5" Drive Bay, Intel® i210AT Ethernet, Mini-PCIe for LTE, M.2 for LTE, with AC/DC Adapter
LEC-7242B	Commercial Grade (OP Temp 0~50C), Intel® Celeron® N3350, 8GB LPDDR4 Memory, 1x SATA 2.5" Drive Bay, Intel® i210AT Ethernet, Mini-PCIe for LTE, M.2 for Wi-Fi, with AC/DC Adapter
LEC-7242C	Commercial Grade (OP Temp 0~50C), Intel® Atom® X5-E3940, 8GB LPDDR4 Memory, 1x SATA 2.5" Drive Bay, Intel® i210IT Ethernet, Mini-PCIe for LTE, M.2 for LTE, with AC/DC Adapter
LEC-7242D	Commercial Grade (OP Temp 0~50C), Intel® Atom® X5-E3940, 8GB LPDDR4 Memory, 1x SATA 2.5" Drive Bay, Intel® i210IT Ethernet, Mini-PCIe for LTE, M.2 for Wi-Fi, with AC/DC Adapter

System Specifications

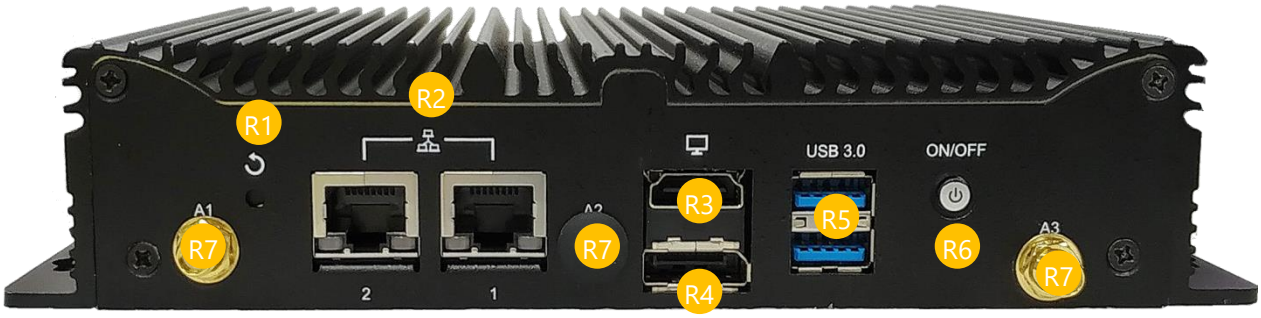
Processor System	CPU	SKU A/B: Intel® Celeron® N3350 (Apollo Lake) SKU C/D: Intel® Atom® X5-E3940 (Apollo Lake)
	Frequency	SKU A/B: 2.40 GHz SKU C/D:1.8 GHz
	Core Number	SKU A/B: 2 cores SKU C/D: 4 cores
	BIOS	AMI SPI Flash BIOS, 16Mbit
Fanless		Yes
System Memory	Technology	Onboard Non-ECC LPDDR4 2400
	Max. Capacity	8 GB (Default 8 GB)
Graphic	Controller	Intel® HD Graphics 500
	Interface	1x HDMI; 1x Display Port
Ethernet	Controller	SKU A/B: Intel® i210AT SKU C/D: Intel® i210-IT
	Speed	10/100/1000Mbps
	Interface	2x RJ45 LAN Ports
Storage		1x SATA 2.5" Drive Bay
Expansion	mini-PCIe	1x Mini PCIe socket w/ Dual SIM for LTE 1x M.2 3042 B+M Key Socket w/ Dual SIM for LTE or Wi-Fi
I/O	Serial Port	1x RS-232/422/485, DB9 Male Ports
	Power Button	1x Power On/Off Button
	Reset Button	1x Reset Button
	USB Port	2x USB 3.0 Type A Port
	LED Indicator	Power on Status/Alarm/ GPS status/ LTE status; LTE signal level status
Watchdog Timer		Watchdog Timer 1~255 Level Time Interval System Reset, software programmable
Power	System Requirement	+12Vdc
	Input Connector	DC Jack with lock
	Adapter	Rated Input Range: 100~240Vac, 60W Output Rated Voltage: +12Vdc
Environment	Operating Temperature	0 ~ 50ºC / -20~70 ºC
	Relative Humidity	5% ~ 95%, non-condensing
Mechanical	Dimension (W x H x D)	168x 40 x 145 mm
	Construction	Aluminum Extrusion + SGCC
	Weight	1kg
	Mounting	Wall mount
Driver Support	Microsoft Windows	WES7E, Win7 Pro FES, WE 8.1 Industry Pro, Win 10 IoT
	Linux	Kernel 3.12
Certification	CE/FCC Class A, UL	
PTCRB	Device HW Version: MSA7308-203, MSA7307-803, MSA8008-003, MSA8007-003 Device SW Version: FLEB7242A00006V113 (0A0W000006790), FLEB7242B00006V113 (0A0W000006814) LTE Module: EG25G (0TAW000234000) Wi-Fi Module: WNFQ-262ACNI (0TAW000257000)	

Front Panel



No.	Description	
F1	Alarm Indicator	Yellow LED for Alarm (Programmable by customer software)
F2	Power Status Indicator	1x Green LED for Power ON Status (Standby in Red and Power ON in Green)
F3	GPS Indicator	1x Blue LED for GPS status (GPS from M.2 LTE module, Programmable by customer software)
F4	LTE Indicator	1x Yellow/ Green / Red for LTE status (Programmable by customer software)
F5	LTE Signal Strength Indicator	4x Blue LED for LTE signal level status (Programmable by customer software)
F6	Dual SIM Card slot	SIM1, SIM2 for M.2 LTE module SIM3, SIM4 for mini-PCIe LTE module Note: There is need to shut down the system while installing/exchanging the SIM card. The Cover-Remove-detect I/O will deliver the GPO signal and cut off the Power of m.2 and mini PCIe while uninstalls the cover. 
F7	COM Port	1x DB9 male Port for RS232/422/485
F8	DC-in Jack	1x DC 12V direct power input
F9	Antenna Hole	2x Antenna Holes for LTE/Wi-Fi

Rear Panel

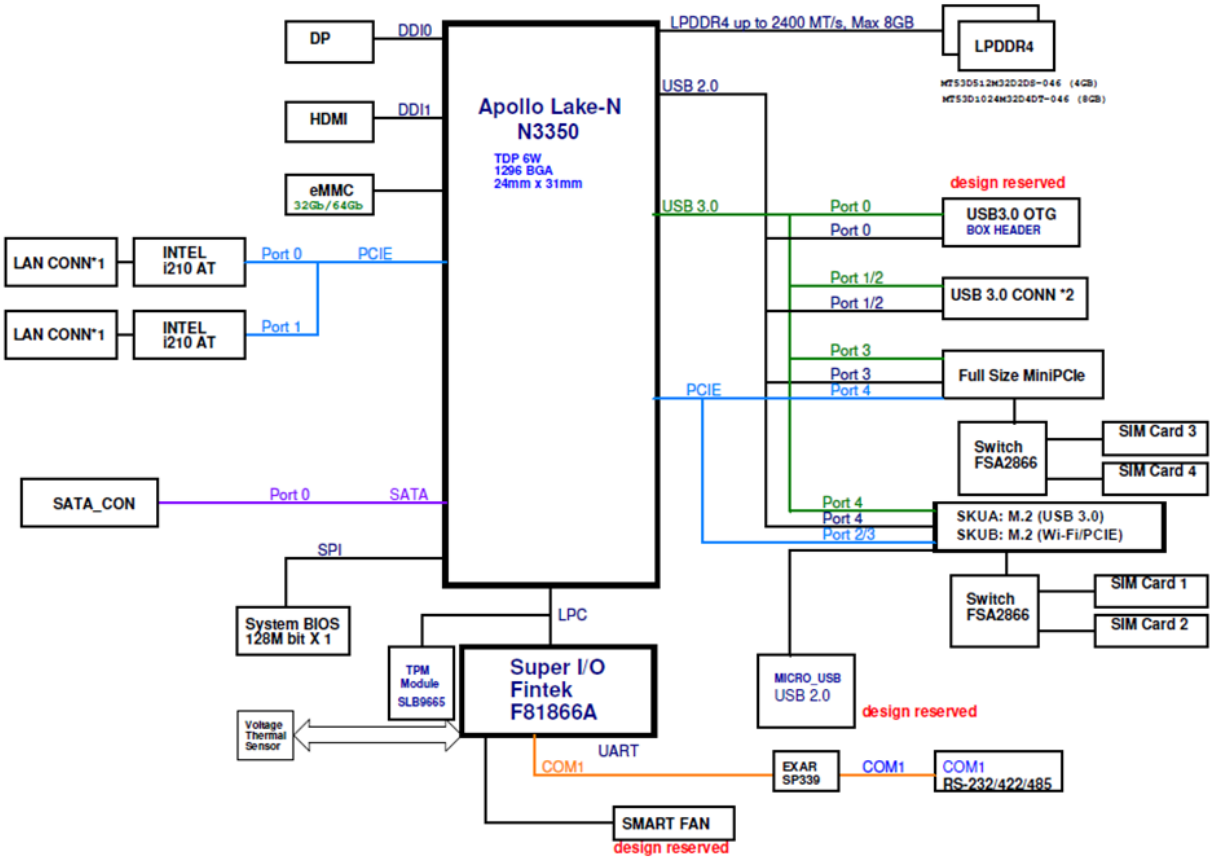


No.	Description	
R1	Reset Button	1x Reset Button
R2	LAN Port	2x RJ45 Port
R3	HDMI Port	1x HDMI Port
R4	Display Port	1x Display Port
R5	USB Port	2x USB 3.0 Type A Ports
R6	Power Switch	1x Power Switch
R7	Antenna Hole	3x Antenna Holes for LTE/Wi-Fi

Motherboard Information

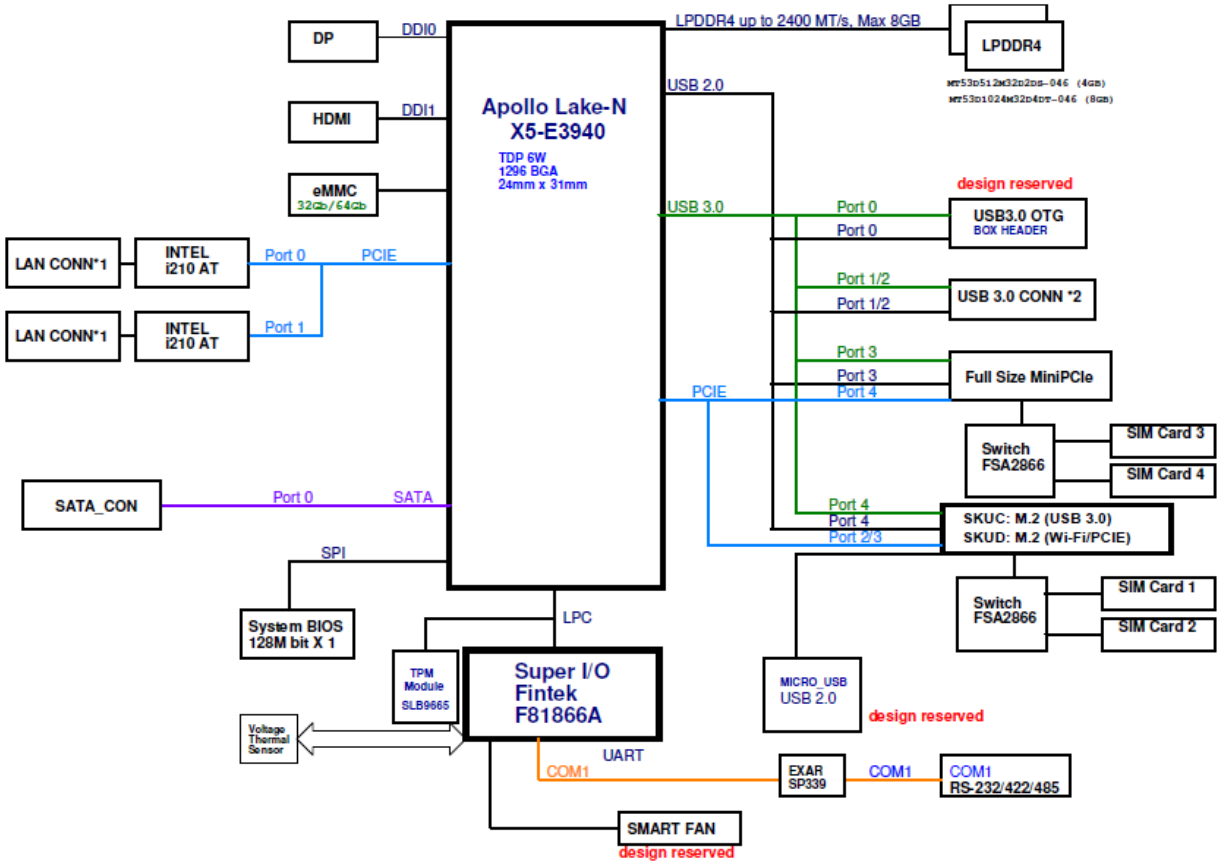
Block Diagram (SKU A/B)

The block diagram indicates how data flows among components on the motherboard. Please refer to the following figure for your motherboard's layout design.

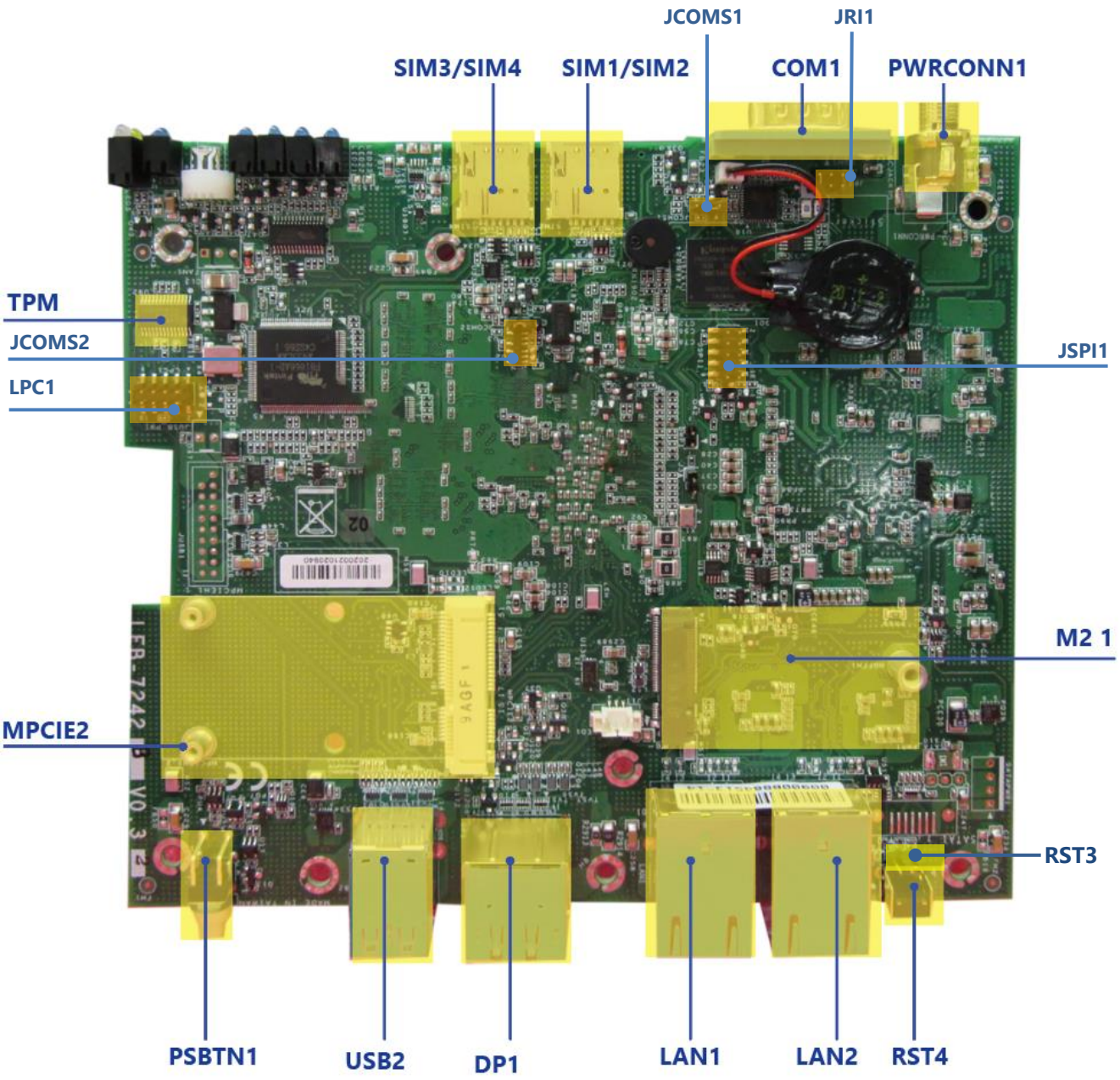


Block Diagram (SKU C/D)

The block diagram indicates how data flows among components on the motherboard. Please refer to the following figure for your motherboard's layout design.



Layout


JCOMS1
JRI1
SIM3/SIM4
SIM1/SIM2
COM1
PWRCONN1
TPM
JCOMS2
LPC1
JSPI1
M2 1
MPCIE2
RST3
PSBTN1
USB2
DP1
LAN1
LAN2
RST4

Internal Jumpers and Connectors

DCJACK1 (+12V)

Pin	Signal
1	DCIN
2	GND
3	GND

JRI1: 1-2 (Default) COM1

Pin	Signal
1	COM_RI1#_P
2	COM_RI1#_SEL
3	V5_S
4	COM_RI1#_SEL
5	V12_S
6	COM_RI1#_SEL

RST3: 2-3 (Default) RST4

1-2 Software Reset

2-3 Hardware Reset (Default)

Pin	Signal
1	GPIO_SW_RST
2	SW_RST_BTN_N
3	FP_RST_N

JCOMS1

Pin	Signal
1	NC
2	VCCRTC_3P3
3	GND

JCOMS2

Pin	Signal
1	NC
2	RTEST_N
3	GND

JSPI1

Pin	Signal
1	SPI0_HOLD_N
2	N/A
3	SPI0_CS_N
4	V1P8_A_SPI
5	SPI0_MISO_R
6	N/A
7	N/A
8	SPI0_CLK
9	GND
10	SPI0_MOSI

LPC1

Pin	Signal
1	L_CLKOUT1
2	LPC_AD1
3	PLTRST_BUF2_N
4	LPC_AD0
5	LPC_FRAME#
6	V3P3_S
7	LPC_AD3
8	GND
9	LPC_AD2
10	GND

COM1

Pin	Signal
1	COM_DCD1#_P
2	COM_RXD1_P
3	COM_TXD1_P
4	COM_DTR1#_P
5	GND
6	COM_DSR1#_P
7	COM_RTS1#_P
8	COM_CTS1#_P
9	COM_RI1#_SEL

M.2

Pin	Signal	Pin	Signal	Pin	Signal
1	NC	26	NC	51	GND
2	V3P3_G1	27	GND	52	NC
3	GND	28	UIM1_VPP	53	PCIE_REFCLK2_DN
4	V3P3_G1	29	M2_USB3_RXN	54	NC
5	GND	30	UIM1_RST	55	PCIE_REFCLK2_DP
6	PWROFF1#	31	M2_USB3_RXP	56	NC
7	USB2_DP4_M2	32	UIM1_CLK	57	GND
8	W_DIS1#	33	GND	58	NC
9	USB_DN4_M2	34	UIM1_DAT	59	ANTCTL0
10	NGFF_LED_1N	35	M2_USB3_TXN	60	NC
11	GND	36	UIM1_PWR	61	ANTCTL1
12	NC	37	M2_USB3_TXP	62	NC
13	NC	38	NC	63	ANTCTL2
14	NC	39	GND	64	NC
15	NC	40	NC	65	ANTCTL3
16	NC	41	PCIE2_RXN	66	NC
17	NC	42	NC	67	PERST#M
18	NC	43	PCIE2_RXP	68	NC
19	NC	44	NC	69	NC
20	NC	45	GND	70	V3P3_G1
21	NC	46	NC	71	GND
22	NC	47	PCIE2_TXP	72	V3P3_G1
23	NC	48	NC	73	GND
24	NC	49	PCIE_TXP	74	V3P3_G1
25	NC	50	PERST#M	75	NC

MiniPCIE2

Pin	Signal	Pin	Signal
1	PCIE_WAKE2_LAN_N(NC)	2	V3P3_G2
3	NC	4	GND
5	NC	6	V1PS_MPCIE2
7	V3P3_G2(NC)	8	UIM2_PWR
9	GND	10	UIM2_DAT
11	PCIE_REFCLK3_DN	12	UIM2_CLK
13	PCIE_REFCLK3_DP	14	UIM2_RST
15	GND	16	UIM2_VPP

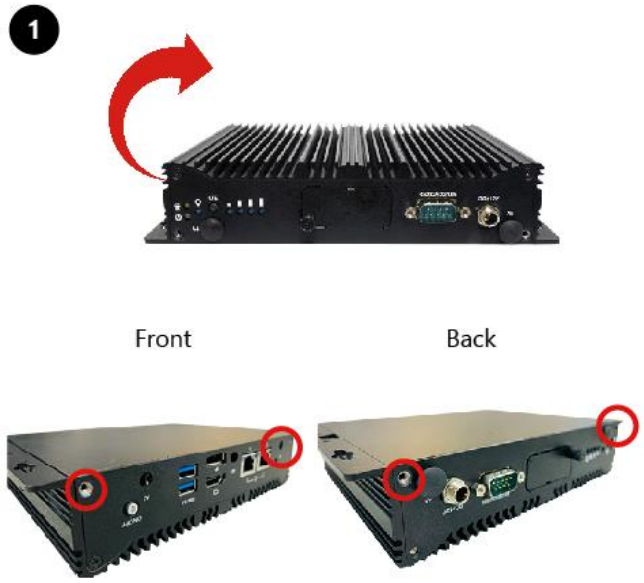
17	NC	18	GND
19	NC	20	V3P3_G2(NC)
21	GND	22	PERST#2
23	USB3_RX3_N	24	V3P3_G2
25	USB3_RX3_P	26	GND
27	GND	28	V1PS_MPCIE2
29	GND	30	SMB_3P3_SCL(NC)
31	USB3_TX3_N	32	SMB-3P3_SDA(NC)
33	USB3_TX3_P	34	GND
35	GND	36	USB2_DN3
37	GND	38	USB2_DP3
39	V3P3_G2	40	GND
41	V3P3_G2	42	NC
43	GND	44	NC
45	NC	46	NC
47	NC	48	V1P5_MPCIE2
49	NC	50	GND
51	NC	52	V3P3_G2

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.

Opening the Chassis

1. Turn the system upside down and remove the 4 screws which secure the chassis on the system's front and back panels.



2. Then lift the chassis up.

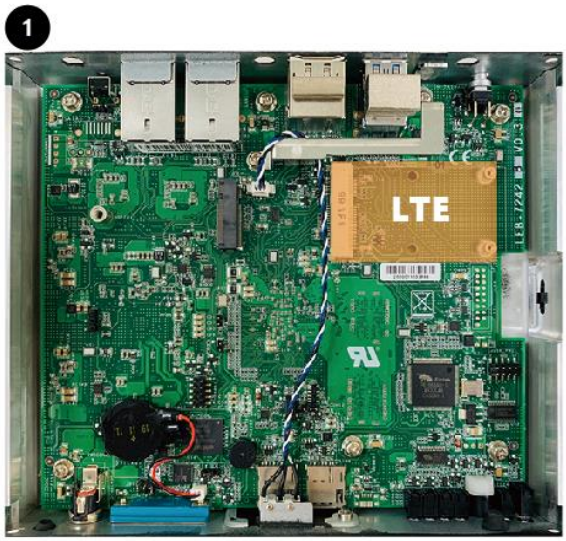


1x Mini PCIe socket w/ Dual SIM for LTE
1x M.2 3042 B+M Key Socket w/ Dual SIM for LTE or Wi-Fi

Installation for LTE Module (Optional)

The system features one Mini PCIe socket for LTE module card, supporting a dual SIM socket. LTE module will require two antennas. Please follow the procedures for the installation of the 5G module card.

1. Locate the LTE Module slot.



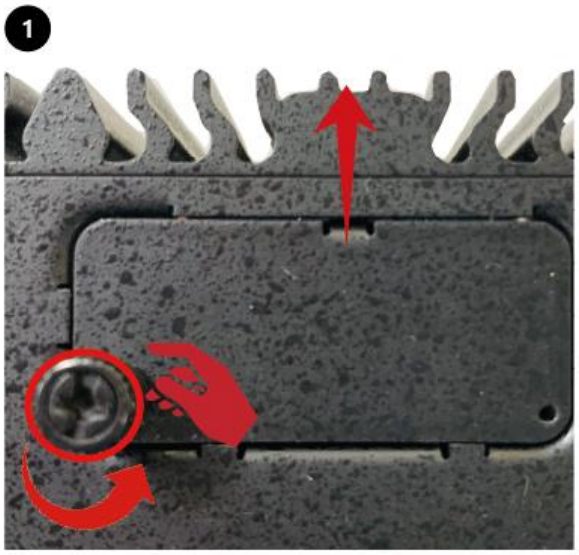
2. Align the notches of the module with the socket keys in the slot, and insert it at 30 degrees into the socket until it is fully seated in the connector. Push down the module and secure it with the screw.



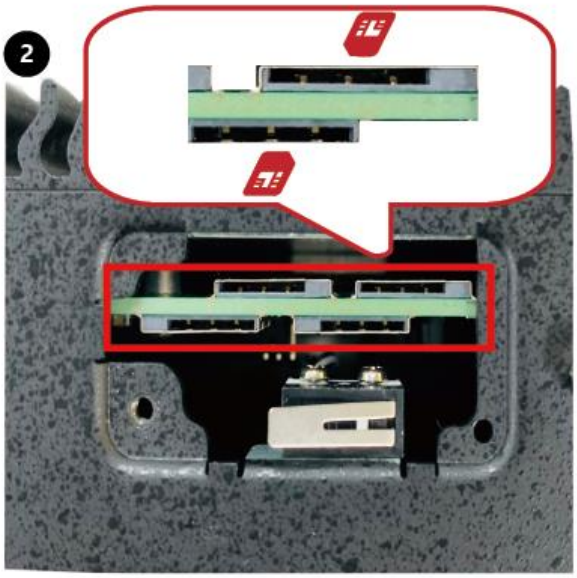
Installation for SIM Card

The SIM slot on the front panel supports 4x SIM cards. The following will discuss the installation of SIM cards.

1. Locate the SIM card slot.Unsecure the screw and remove the cover from the front panel.



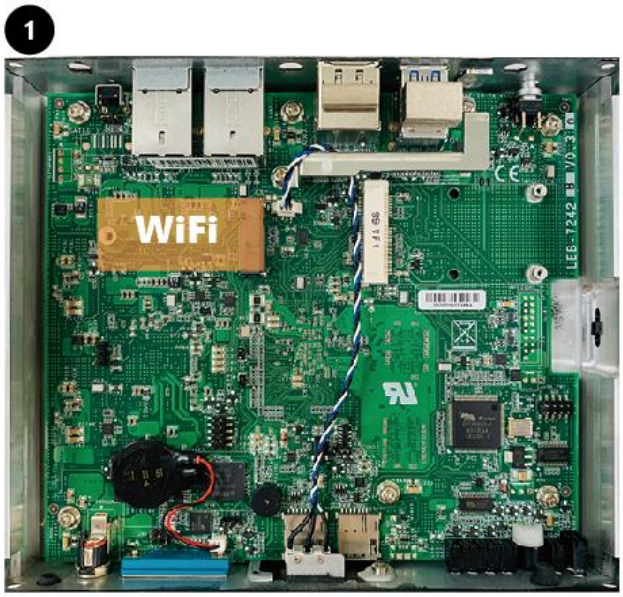
2. Insert the SIM card into the slot with the **gold contacts** facing side.



Installation for Wi-Fi Module (Optional)

The system features one M.2 slot for a Wi-Fi module card. Wi-Fi module will require two antennas. Please follow the steps for installation.

1. Locate the WiFi Module slot.



2. Align the notches of the module with the socket keys in the slot, and insert it at 30 degrees into the socket until it is fully seated in the connector. Push down the module and secure it with the screw.



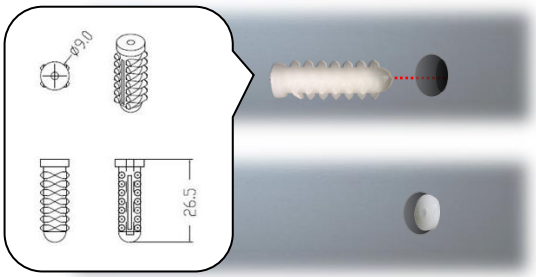
Wall Mounting

The system can be mounted on a flat surfaced wall. Please take the following into consideration when mounting the system onto a wall.

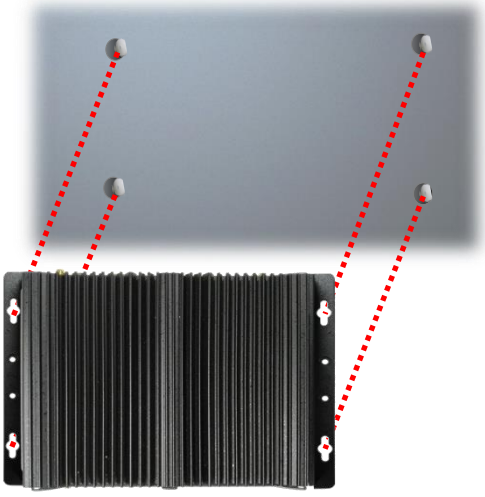
1. On the wall, measure the exact place where you want to hang the system, and drill four holes that match the four mounting holes on both brackets.



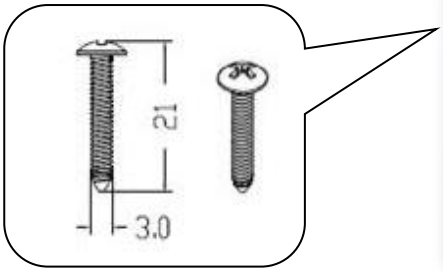
2. Insert **four** anchoring bolts into the holes.

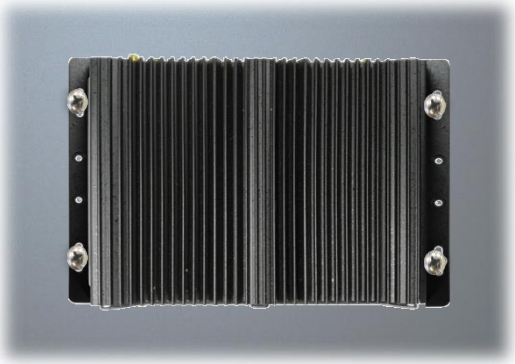


3. Align the four mounting holes on the system's brackets with the four anchoring bolts you just installed on the wall.



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



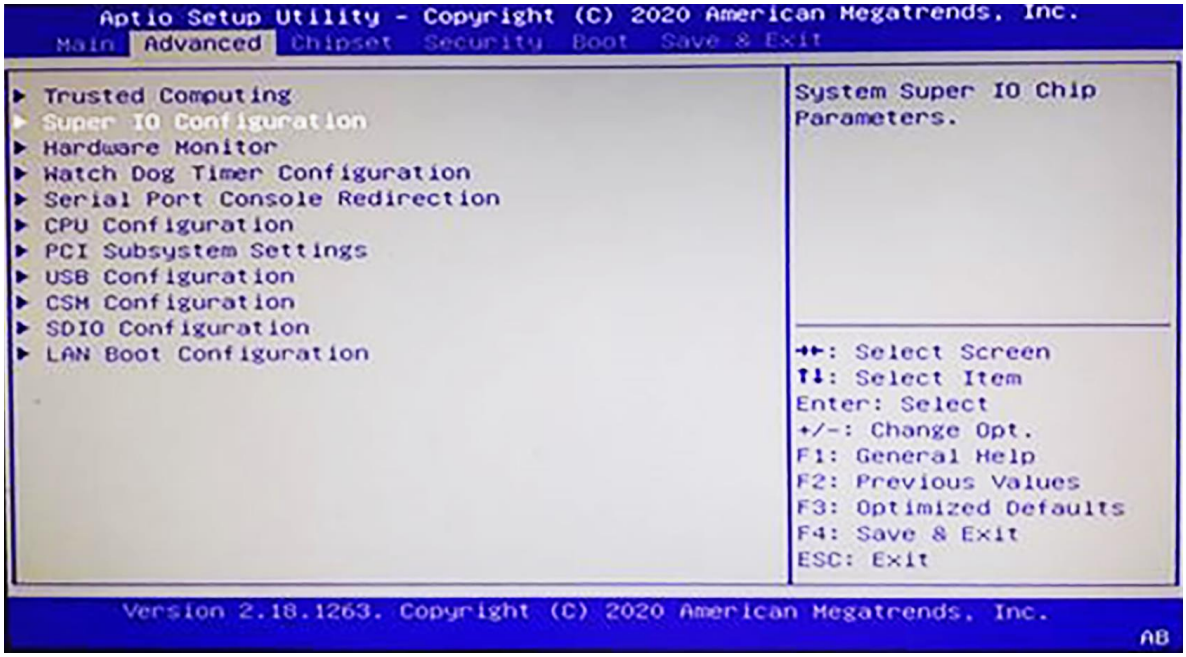


CHAPTER 3: BIOS SETUP

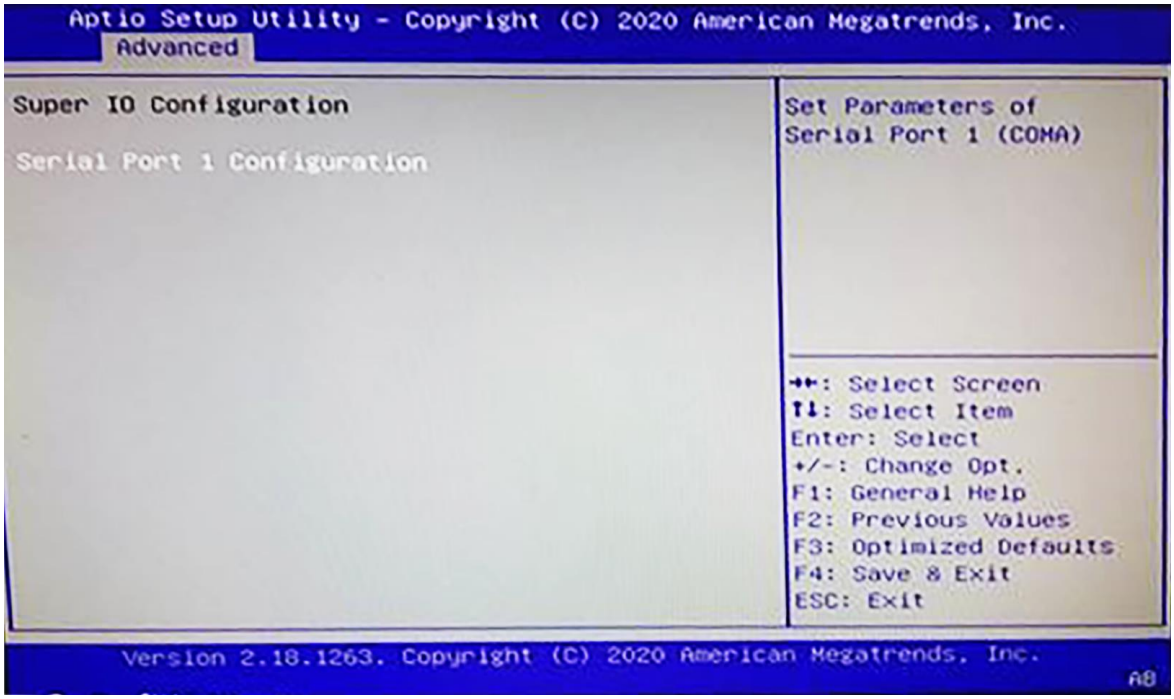
Advanced

RS232/422/485 select setting:

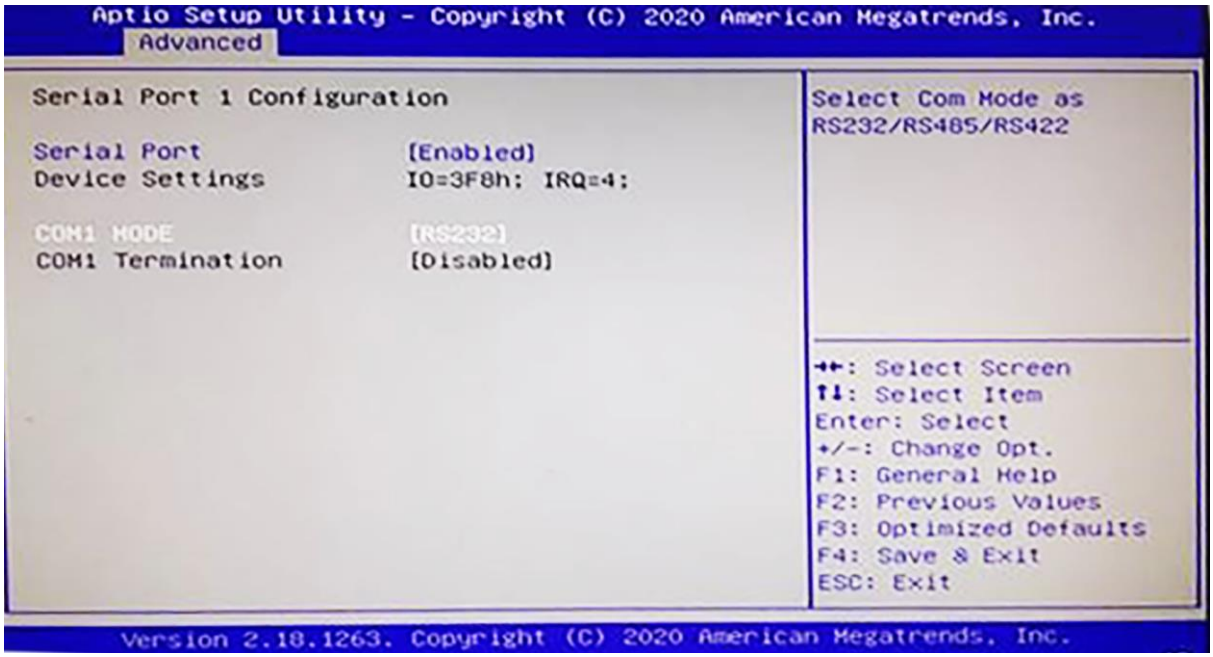
1. Select "Super IO Configuration" in "Advanced" screen



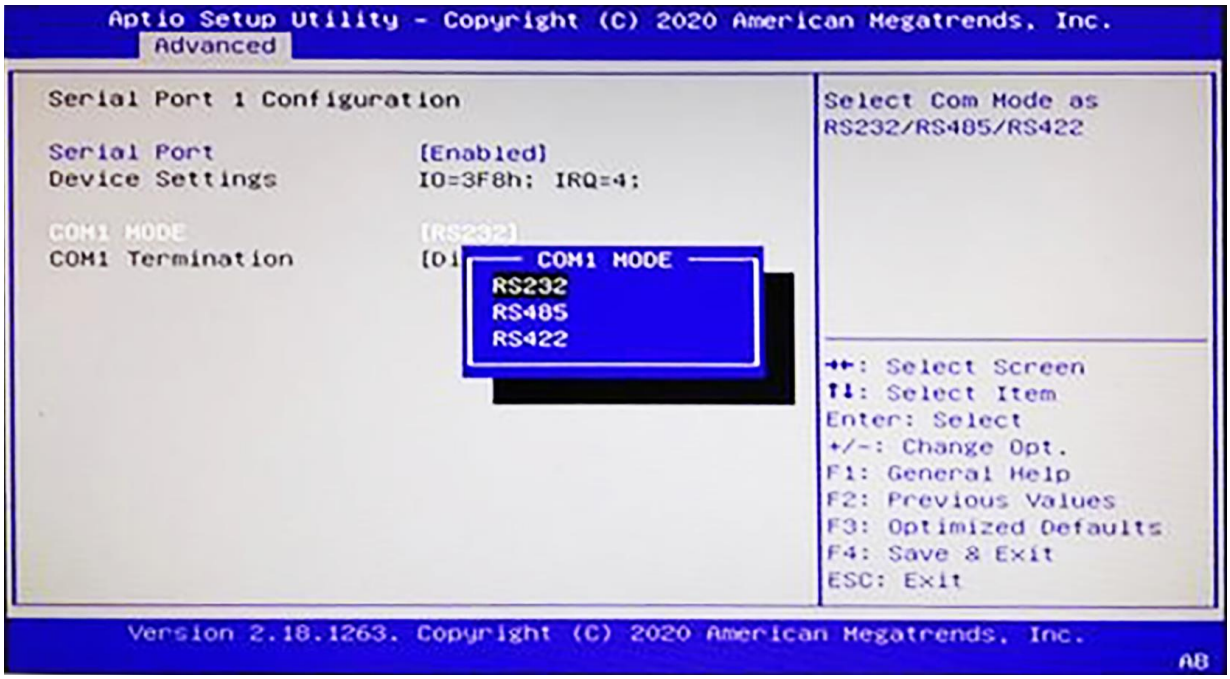
2. Select "Serial Port 1 Configuration" item



3. Select COM1 MODE for Option as RS232 or RS422 or RS485 (Default setting is RS232)



4. Click "F4" to save and setting and exit.



APPENDIX A: 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 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: ☐ Repair (Please describe failure details) ☐ Testing Purpose
Company:	Contact Person:
Phone No.	Purchased Date:
Fax No.:	Apply Date:
Return Shipping Address: _____	
Shipping by: ◻ Air Freight ◻ Sea ◻ Express:_____	◻ Others:_____

Item	GP	Model Name	Serial Number	Configuration

Item	Problem Code	Failure Status

***Problem Code:**

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

Requested by

_____

Authorized Signature / Date

Confirmed by supplier

_____

Authorized Signature / Date