B912I225
User's Manual

Revision: 1.0
Release Date: November 11, 2025

Trademark:

*** Specifications and Information contained in this documentation are furnished for information use only, and are subject to change at any time without notice, and should not be construed as a commitment by manufacturer.**

TABLE OF CONTENT

Environmental Protection and Safety Announcement 3

China RoHS Requirements (EN) 4

User's Notice 5

Manual Revision Information 5

Chapter 1 Quick Installation Manual 6

1-1 Safety Instructions 6

1-2 Dissemble the Chassis 8

1-3 To Install LGA-1700 CPU 9

1-4 To Install SO-DIMM to the Board 12

1-5 To Install M.2 M-key Card 13

1-6 To Install M.2 E-key Wi-Fi Card 14

1-7 To Install M.2 B-key Card along with Nano-SIM card 16

1-8 To Install PCIE/PCI Expansion Card 18

Environmental Protection and Safety Announcement

- Do not dispose this electronic device into the trash while discarding. To minimize pollution and ensure environment protection of mother earth, please recycle.

- Avoid the dusty, humidity and temperature extremes. Do not place the product in any area where it may become wet.

- Generally speaking, dramatic changes in temperature may lead to contact malfunction and crackles due to constant thermal expansion and contraction from the welding spots' that connect components and PCB. Computer should go through an adaptive phase before it boots when it is moved from a cold environment to a warmer one to avoid condensation phenomenon. These water drops attached on PCB or the surface of the components can bring about phenomena as minor as computer instability resulted from corrosion and oxidation from components and PCB or as major as short circuit that can burn the components. Suggest starting the computer until the temperature goes up.

- The increasing temperature of the capacitor may decrease the life of computer. Using the close case may decrease the life of other device because the higher temperature in the inner of the case.

China RoHS Requirements (EN)

Poisonous or Hazardous Substances or Elements in Products

Main Board/ Daughter Board/ Backplane

Name and content of hazardous substances in productPart Name						
	铅 (Pb)	汞 (Hg)	镉 (Cd)	六价铬 (Cr(VI))	多溴联苯(PBB)	多溴二苯醚(PBDE)
PCB Assemblies	X	○	○	○	○	○
Connector and Cable	X	○	○	○	○	○
Chassis	○	○	○	○	○	○
Hard Disk	X	○	○	○	○	○
CPU and Memory	X	○	○	○	○	○
Power	X	○	○	○	○	○
Battery	X	○	○	○	○	○

The table is prepared in accordance with the provisions of SJ/T 11364.

○：Indicates that said hazardous substance contained in all of the homogenous materials for this product is below the limit requirement of GB/T 26572.

×：Indicates that said hazardous substance contained in at least one of the homogenous materials used for this part is above the limit requirement of GB/T 26572.

But this product still be compliance with 2011/65/EU Directive(allowed with 2011/65/EU Annex III of RoHS exemption with number 6(c),7(a),7(c)-1)

Notes：

1. This product defined period of use is under normal condition.
2. In above part, CPU/Memory/ Hard Disk/ Power are optional.

User's Notice

COPYRIGHT OF THIS MANUAL BELONGS TO THE MANUFACTURER. NO PART OF THIS MANUAL, INCLUDING THE PRODUCTS AND SOFTWARE DESCRIBED IN IT MAY BE REPRODUCED, TRANSMITTED OR TRANSLATED INTO ANY LANGUAGE IN ANY FORM OR BY ANY MEANS WITHOUT WRITTEN PERMISSION OF THE MANUFACTURER.

THIS MANUAL CONTAINS ALL INFORMATION REQUIRED TO USE THIS MOTHER-BOARD SERIES AND WE DO ASSURE THIS MANUAL MEETS USER'S REQUIREMENT BUT WILL CHANGE, CORRECT ANY TIME WITHOUT NOTICE. MANUFACTURER PROVIDES THIS MANUAL "AS IS" WITHOUT WARRANTY OF ANY KIND, AND WILL NOT BE LIABLE FOR ANY INDIRECT, SPECIAL, INCIDENTIAL OR CONSEQUENTIAL DAMAGES (INCLUDING DAMANGES FOR LOSS OF PROFIT, LOSS OF BUSINESS, LOSS OF USE OF DATA, INTERRUPTION OF BUSINESS AND THE LIKE).

PRODUCTS AND CORPORATE NAMES APPEARING IN THIS MANUAL MAY OR MAY NOT BE REGISTERED TRADEMARKS OR COPYRIGHTS OF THEIR RESPECTIVE COMPANIES, AND THEY ARE USED ONLY FOR IDENTIFICATION OR EXPLANATION AND TO THE OWNER'S BENEFIT, WITHOUT INTENT TO INFRINGE.

Manual Revision Information

Reversion	Revision History	Date
1.0	First Edition	November 11, 2025

Chapter 1 Quick Installation Manual

Notice!	The photos in this file are for illustration purpose only. The model may not be the latest version. Please refer to the product you purchased for actual specification.

1-1 Safety Instructions

1. Read these safety instructions carefully.
2. Retain this user manual for future reference.
3. Disconnect the equipment from all AC outlets before cleaning.
   use only a damp cloth for cleaning. Do not use liquid or spray detergents.
4. For pluggable equipment, the power outlet socket must be located near the equipment and easily accessible.
5. Protect the equipment from humidity.
6. Place the equipment on a reliable surface during installation. Dropping or letting the equipment fall may cause damage.
7. Ensure that the voltage is correct before connecting the equipment to a power outlet.
8. Position the power cord away from high-traffic areas. Do not place anything over the power cord.
9. All cautions and warnings on the equipment should be noted.
10. If unused for a long time, disconnect the equipment from the power source to avoid damage from transient overvoltage.
11. Never pour liquid into an opening. This may cause fire or electrical shock.
12. Never open the equipment. For safety reasons, the equipment should be opened only by qualified service personnel.
13. If one of the following occurs, have the equipment checked by authorized service personnel:

● The power cord or plug is damaged.
● Liquid has penetrated the equipment.
● The equipment has been exposed to moisture.
● The equipment is malfunctioning or does not operate according to the user manual.
● The equipment has been dropped and damaged.
● The equipment shows obvious signs of breakage.

16. Any unverified components may cause unexpected damage. To ensure Correct installation, always use the components (e.g., screws) provided in the accessory box.
17. Batteries are at risk of exploding if incorrectly installed.
Replace only with the same or equivalent type as recommended by the manufacturer.
Discard used batteries according to the manufacturer’s instructions.
18. Always disconnect the power cord from the chassis before manually handling the hardware.
Do not implement connections or configuration changes while the device is powered on.
Sudden power surges may damage sensitive electronic components.

19. **CAUTION OF HIGH HEAT FROM TOP COVER!!!**



In working mode, the **B912I225** is capable of operating at an ambient temperature of up to 60 °C. In such cases, the temperature of the top cover may reach a high value.

Under such a condition, accidental contact with the **B912I225** needs to be avoided.

External surfaces do not need to be touched to operate the equipment. If touching cannot be avoided, please wear protective gloves.

1-2 Dissemble the Chassis

User can install expansion parts according to their own needs: DDR5 DIMMs, M.2 M-key type-2280 card, M.2 E-key type-2230 card, M.2 B-key type-3042 card along with compatible Nano-SIM card.



1. Place the system upon a flat operation platform with the top cover side upwards as the photo shows. Then remove the screws in the marked spots with a compatible Phillips screw driver.



2. Put the motherboard with this side upwards on the operating platform.

1-3 To Install LGA-1700 CPU



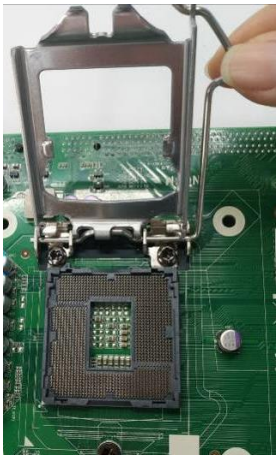
1. Locate the CPU socket on the board. Please make sure that CPU socket is facing towards you and the level is on you right hand side.



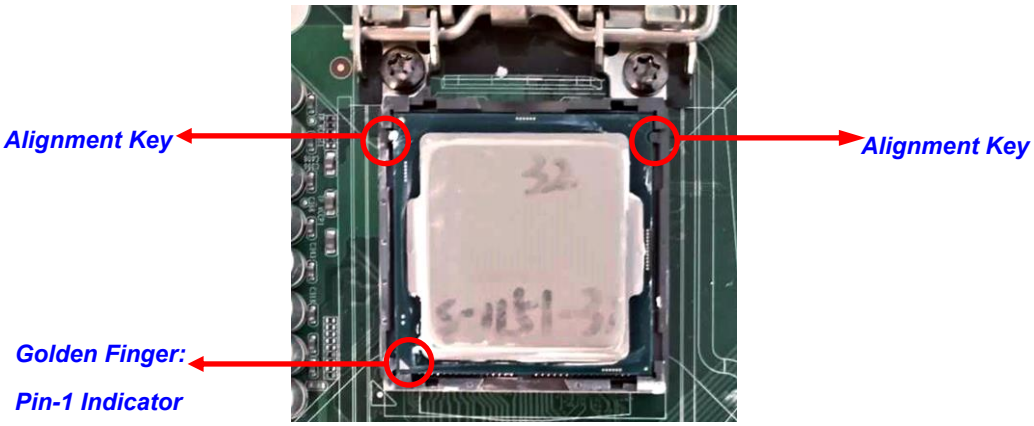
2. Remove the plastic protective cap from the socket (Put it to the original place if CPU is not installed. Do not touch the metal contact point of the CPU socket).



3. Press down the level and move it to the right side to make sure it is freed from the hook.



4. Open the level upwards about 135 degree and the metal protection plate will be pulled up at the same time.



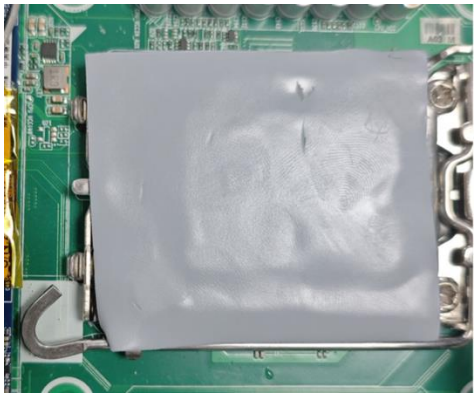
5. Make sure that golden finger in the marked spot as shown in the illustration and match the two alignment keys on the CPU with two points of the socket. CPU can only be correctly installed with this direction. Incorrect installation may cause damage to CPU.



6. Put down the load plate in the direction shown above.



7. Press down the load level and move it leftwards to make sure it is locked under the hook.



8. Paste heat dissipation stickers on the CPU



9. Paste heat dissipation stickers on the CPU heat sink

1-4 To Install SO-DIMM to the Board



1. Locate the DDR5 SO-DIMM slots on the board.



2. Insert the gold-figure side of a compatible SO-DIMM into the slot at a 30 degree. See to it that the break of the module fit into the notch of the slot and the golden-finger side should be fully plugged into the slot.



3. Press down to secure the SO-DIMM to the slot. The eject tabs will lock automatically if installing direction is correct.

1-5 To Install M.2 M-key Card

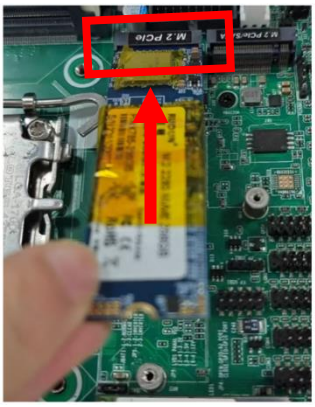
M2M slot: M.2 M-Key (2280)



1. Locate M.2 M-key slot on the board.



2. Remove the screw in the marked spot for further installation.



3. Insert the gold-figure side of compatible M.2 M-key type-2280 card into the slot.



4. Lock the card to the board by tightening up the screw to the marked spot.

1-6 To Install M.2 E-key Wi-Fi Card

M2E slot: M.2 E-Key (2230).

**__Note:__User needs to pick out the WIFI antenna string and press the metal hat on the string end to corresponding metal button on the installed WiFi card, so they need to remove the whole chassis heat sink shell on the back of the Panel PC for further installation, which is different from __2-2__, please refer to the following steps for the installation of the compatibale M.2 E-Key Wi-Fi card:*

1. Remove the screws in the marked red circle spots and dissemble the whole chassis heat sink shell from the Panel PC.

2. The WiFi antenna strings (for better signal reception) are tied up in a bundle with other cables; Pick out the antenna strings from the bundle and tear off the **acetate tape** which protects the metal hats of the string end.

> ***Notice：*** *The other wires/cables must be wrapped with **Insulated Tape** and placed in the original position to avoid short circuit caused by contact between the metal parts and the mainboard.*



3. Locate M.2 E-key slot on the board.



4. Remove the screw post & screw nut in the marked spot



5. Insert the gold-figure side of the compatible M.2 E-key type-2230 Wi-Fi card into the slot.



6. Secure the card to the board by tightening up the screw post to the marked spot.
7. Tear off the **acetate tape** to find metal hats of Wi-Fi antenna strings. Press the metal hats of the antenna string end to the antenna slots on the card.
8. Locate the Wi-Fi antenna holes of the IO panel. Connect the external Wi-Fi receiver antenna to the antenna head on the panel.

> ***Note**: We suggest that the connection of the external Wi-Fi receiver antenna be made **after all hardware installation finished and the chassis is assembled back to the panel.***

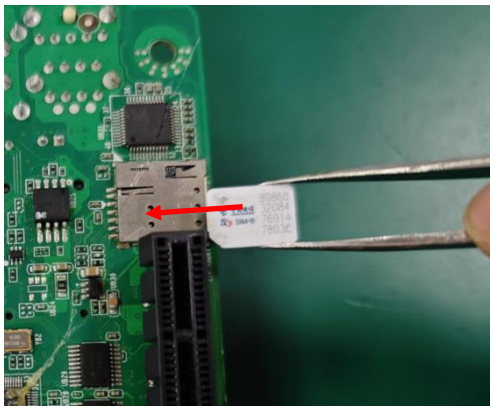
1-7 To Install M.2 B-key Card along with Nano-SIM card

M2B slot: M.2 B-Key (3042) supports 4G/ module, co-function with SIM card installed.

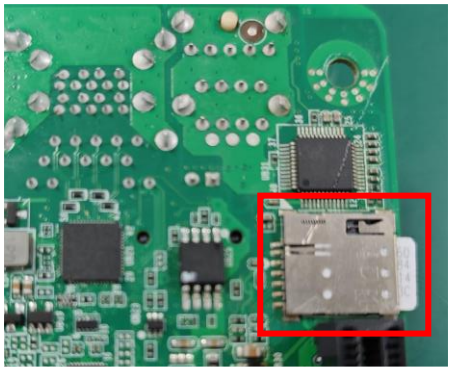
To install compatible SIM card into SIM card slot:



1. Locate M.2 E-key slot on the board.



2. Use a pair of tweezers to pick up compatible SIM card and push it into the slot in the direction as shown.



3. The board with compatible SIM card installed in place.

To install compatible M2B card:



1. Locate M.2 B-key slot on the board.



2. Remove the screw nut in the marked spot for further installation.



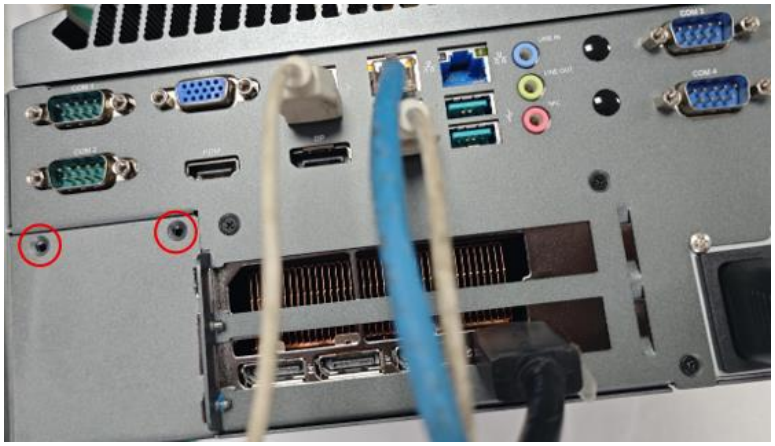
3. Insert the gold-figure side of the compatible M.2 B-key type-3042 card into the slot.



4. Secure the card to the board by tightening up the screw to the marked spot.

1-8 To Install PCIE/PCI Expansion Card

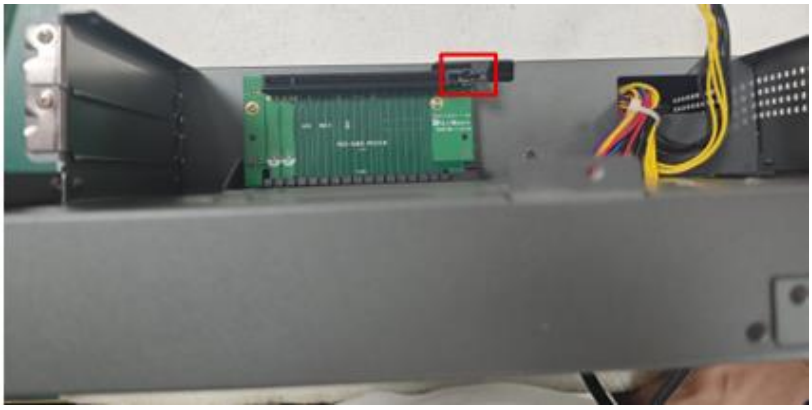
After system basic hardware installation procedures finished, if you need to install the expansion cards, please refer to the following steps:



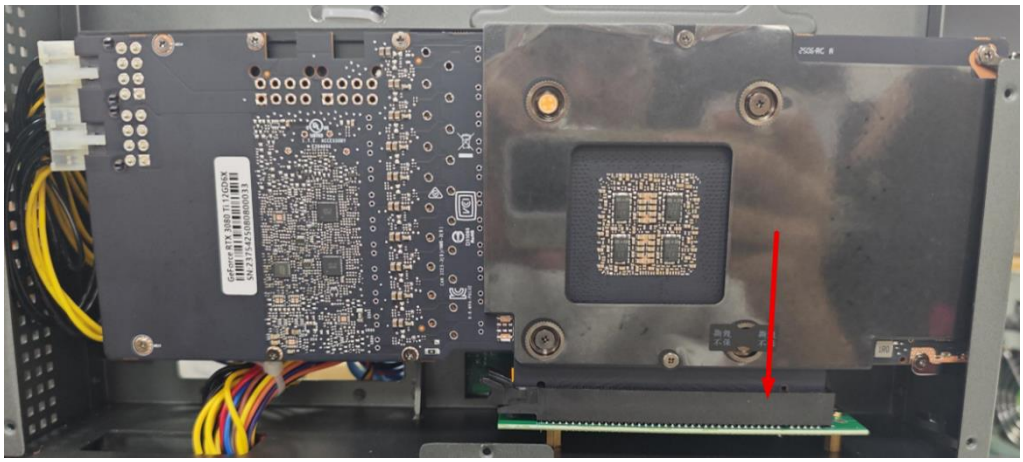




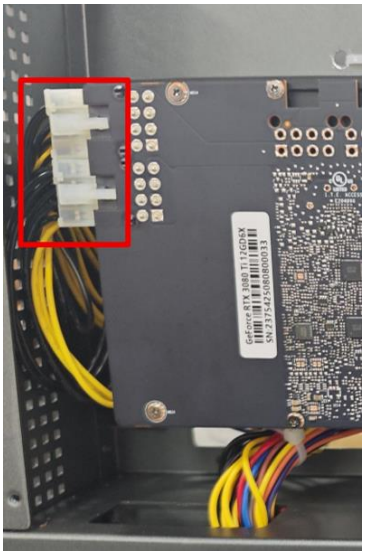
1. Remove the screws in the marked spots with a compatible Phillips screw driver.



2. If you need to install a compatible expansion card in the PCIEx16 transfer card slot, please press down the snap joint of slot at first.



3. Push the PCIE card into the slot in the direction as shown. Make sure the golden figure side is fully inserted into the slot and the snap joint fitted with the card.



4. Confirm whether to connect the power supply line according to the graphics card requirements