GIGAIPC

QBiX-JMB-CFLA310H-A1

Industrial Falness System with Intel® H310 Chipset, Support for Intel® 8th/9th Gen. Core™ i Processor
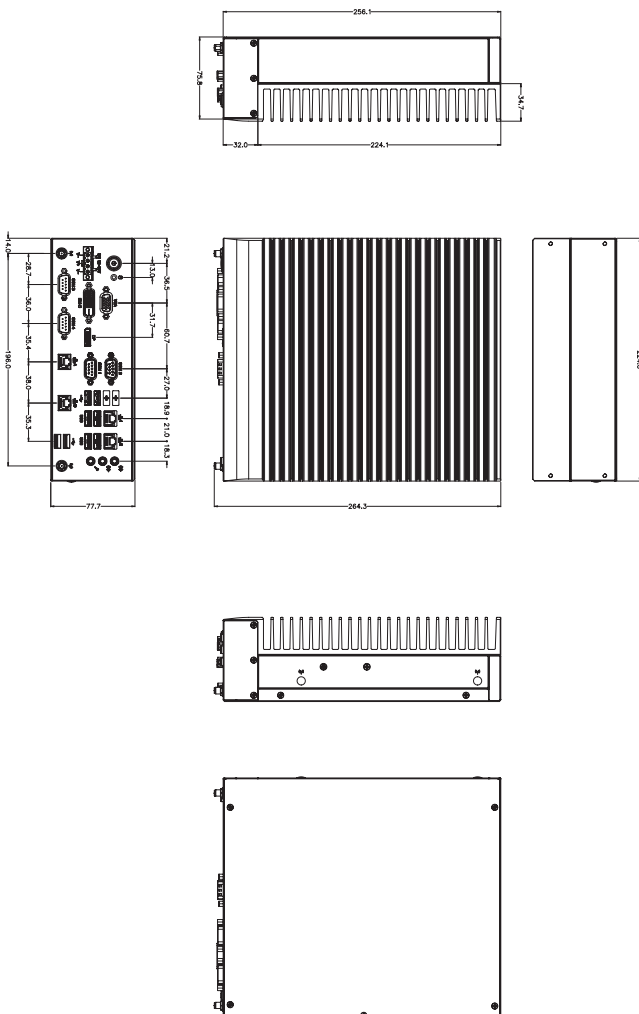
Startup Manual

Packing List

Before you begin installing your card, please make sure that the following items have been shipped:

1. Screw HDD x 8 (25KS2-130051-S0R)
2. Terminal Blocks Male Plug (25IO0-5ESDV0-D2R)
3. Terminal Blocks 1 x 2P (25IO0-EC3500-D2R)
4. Terminal Blocks 1 x 10P (25IO0-EC3810-D2R)

Caution: DANGER OF EXPLOSION IF BATTERY IS INCORRECTLY REPLACED. REPLACE ONLY WITH THE SAME OR EQUIVALENT TYPE RECOMMENDED BY THE MANUFACTURER, DISCARD USED BATTERIES ACCORDING TO THE MANUFACTURER'S INSTRUCTIONS.

Dimension

Specifications

Dimension	System Size: 224W x 257D x 91H(mm)
CPU	Support for 8/9th Generation Intel® Core™ i7/i5/i3 IOTG processors in the LGA1151 package, TDP under 65W
Chipset	Intel® H310 Express Chipset
Memory	2 x DDR4 SO-DIMM sockets supporting up to 32 GB, Dual channel DDR4 2666/2400 MHz
Ethernet	1 x GbE LAN ports (Intel® i219V) 3 x GbE LAN ports (Intel® i211AT)
Graphic support	Integrated Graphics Processor - Intel® HD Graphics support: 1 x DVI-D port, supporting a maximum resolution of 1920x1080 @60 Hz 1 x D-Sub port, supporting a maximum resolution of 1920x1200 @60 Hz 1 x DP port, supporting a maximum resolution of 4096x2160 @30 Hz 2 independent displays output
Audio	Realtek ALC269 with 2W amplifer High Definition Audio
Storage	3 x SATA 6 Gb/s port (Support 2.5" HDD/SSD)

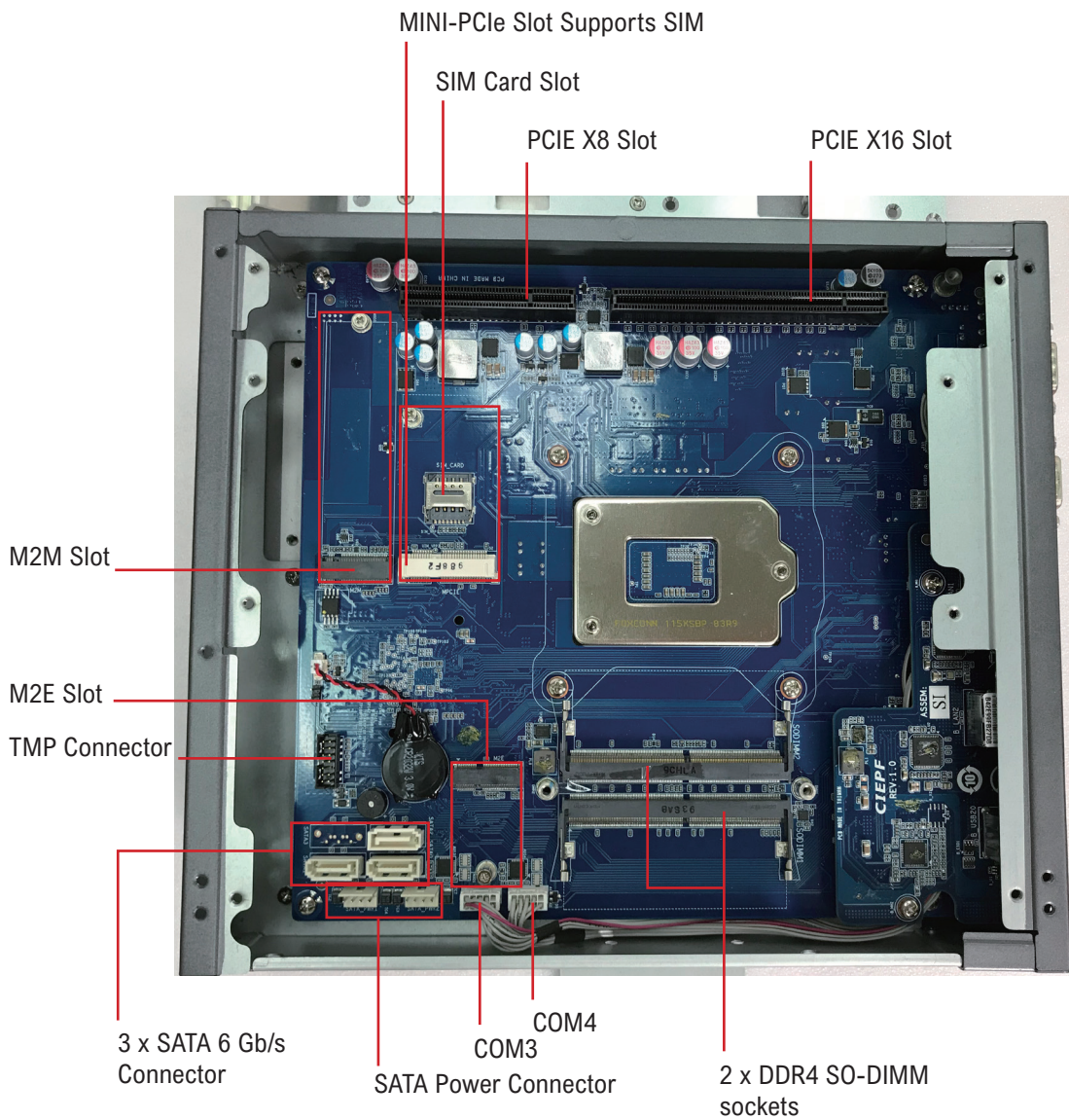|	
Expansion Slots	1 x M.2 Slot 2230 (E-Key For WiFi + BT) 1 x M.2 Slot 2280 (M-Key support SATA) 1 x Mini-PCIe slot (PCIeX1 + USB2.0) with SIM Slot 1 x PCIe slot - Discrete riser card support
Front I/O	1 x DC IN (4-pin terminal block 12V~48V) 1 x VGA / 1 x DVI-D /1 x DP 2 x COM (RS-232/422/485 and RI/5V/12V) 2 x COM (RS-232) 4 x RJ45 4 x USB3.0 4 x USB2.0 1 x Audio Jacks (Line in, Line out & Mic in) 4 x External Antenna (optional)
Rear I/O	—
Power	DC in +12V~48Vdc (Full Range)
Operation Temperature	Operating temperature: -20°C to 50°C (CPU 65W TDP) Operating temperature: -20°C to 60°C (CPU 35W TDP) Operating humidity: 0-90% (non-condensing) Non-operating temperature: -40°C to 85°C Non-operating humidity: 0%-95% (non-condensing) Use wide temperature range memory and storage
Vibration During Operation	Operation: IEC 60068-2-64, 3 Grms, random, 5 ~ 500 Hz, 1 hr / Per Axis, With SSD/M.2 2280 Non-operation: IEC 60068-2-6, 2 G, Sine, 10 ~ 500 Hz, 1 Oct/min, 1 hr / Per Axis
Shock During Operation	Operation: IEC 60068-2-27, 50 G, half sine, 11 ms duration, With SSD
Packaging Content	Box Packing Capacity: 1 Carton size: 300x315x166(mm) Content: TERMINAL BLOCKS MALE PLUG (25IO0-2ESDV0-D2R)
Oeder Information	System : 9BQJH310AMR-SI Built in : CPU i3-9100E DDR4 8GB

System I/O Interface
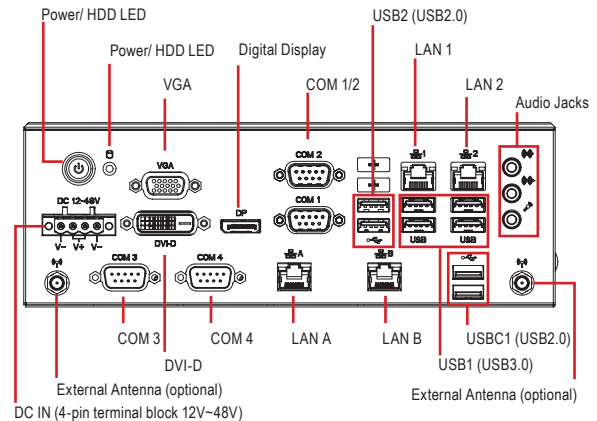
Jumpers and Connectors

The board has a number of jumpers that allow you to configure your system to suit your application. The table below lists the function of each of the jumpers and connectors.

Front I/O Connectors

| No.	Code	Scription
1	VGA	VGA Connector
2	DVI-D	DVI-D Connector
3	DP	Digital Display Port
4	COM 1/2	RS-232/422/485
5	COM 3/4	RS-232
6	USB 1	4 x USB 3.0
7	USB 2	2 x USB 2.0
8	USB C1	2 x USB 2.0
9	LAN 1	Intel® i219V
10	LAN 2	Intel® i211AT
11	LAN A	Intel® i211AT
12	LAN B	Intel® i211AT
13	LED	Power and Storage Device Status LED
14	DC-12-48V	Power connector
15	Audio	Audio Jacks (Line in, Line out & Mic in)

Internal I/O Connectors

MINI-PCIe Slot Supports SIM

SIM Card Slot

PCIE X8 Slot

PCIE X16 Slot

M2M Slot

M2E Slot

TMP Connector

3 x SATA 6 Gb/s Connector

COM3

COM4

SATA Power Connector

2 x DDR4 SO-DIMM sockets

# Simple Installation Process

Memory Installation

QBiX-JMB-CFLA310H-A1 supports DDR4 SO-DIMM type memory module.
1. Loosen 4 screws and remove the bottom cover.
2. Loosen 4 screws to remove memory thermal cover.
3. Affix thermal pad on memory and assemble memory.
Note : Thermal pad and memory thermal cover must be fully mated and compacted.
4. Install 4 screws and memory thermal cover.
5. Replace the bottom cover and secure with screws.

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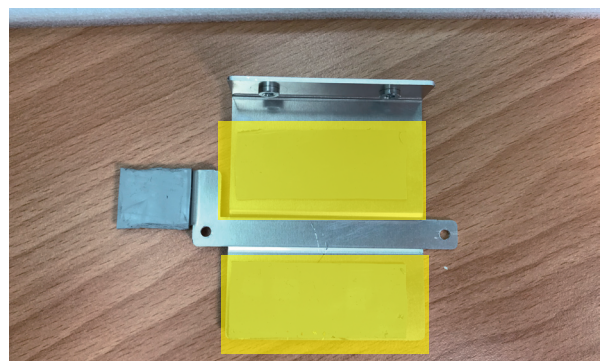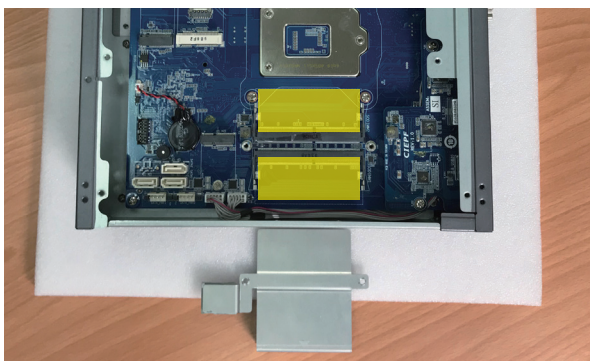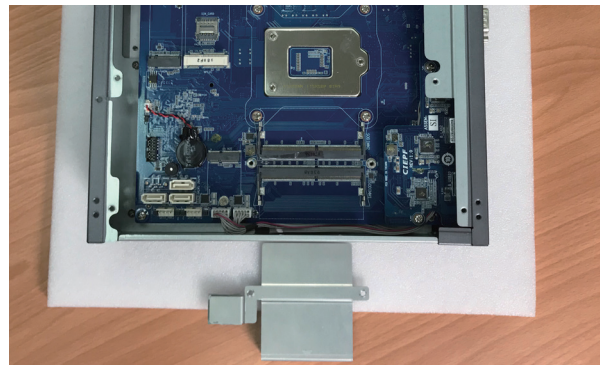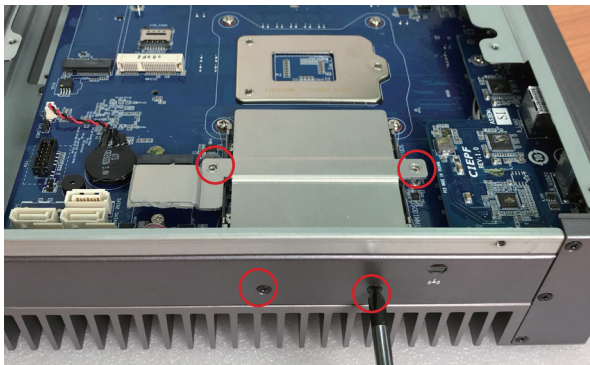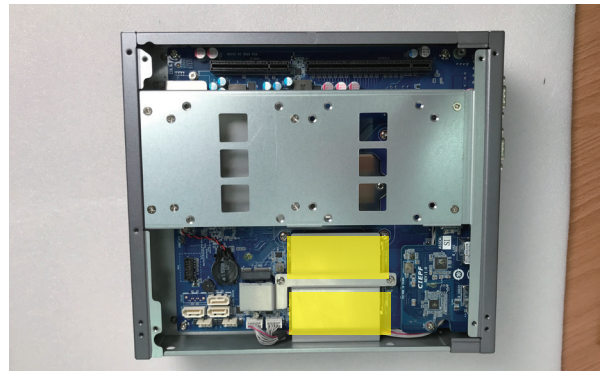
M2E (Support NGFF-2230 Wifi/BT) Installation

1. Loosen 4 screws and remove the bottom cover.
2. Loosen 4 screws to remove M2E thermal cover.
3. Install the module in the M2E (Support NGFF-2230 Wifi/BT) slot and secure with screws.
4. Affix thermal pad on M2E card and assemble.
5. Install 4 screws and M2E thermal cover.
6. Replace the bottom cover and secure with screws.
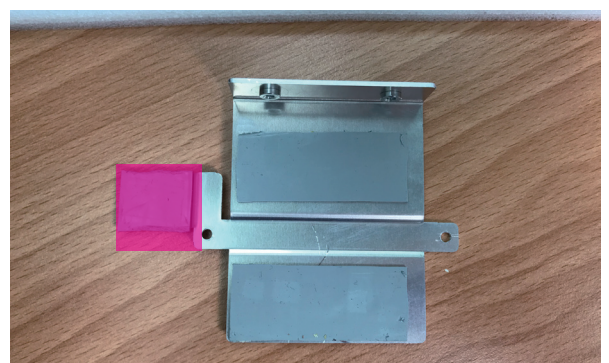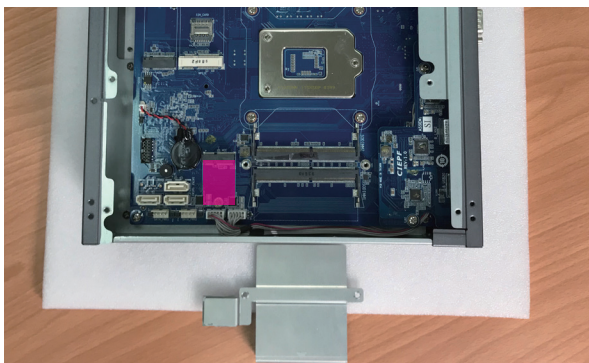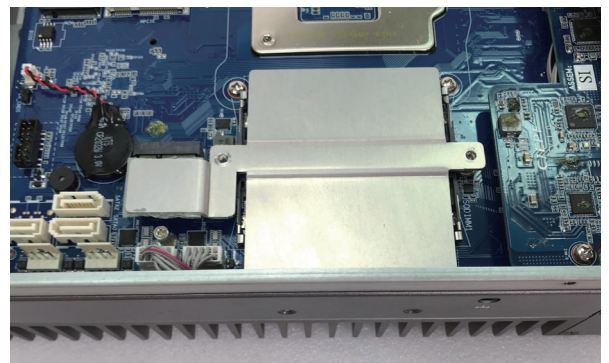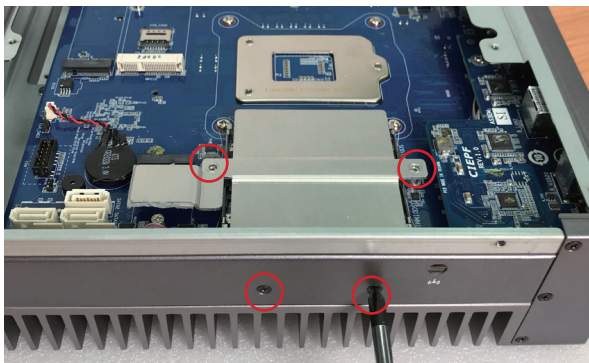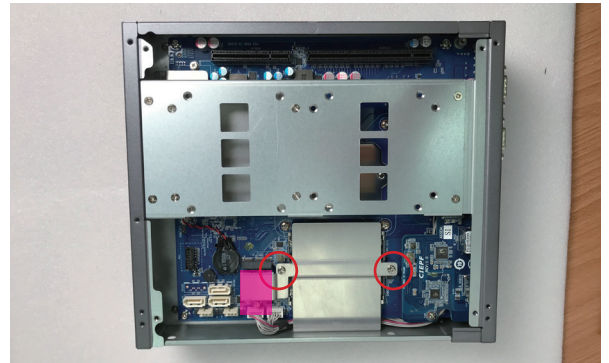
## Storage Installation 1 (2.5" HDD/SSD)

1. Loosen 4 screws and remove the bottom cover
2. Loosen 4 screws to remove storage tray.
3. Secure storage with 4 x screws.
4. Assemble SATA cable/power cable and replace storage tray securely with 4 x screws.
5. Replace the bottom cover and secure with screws.

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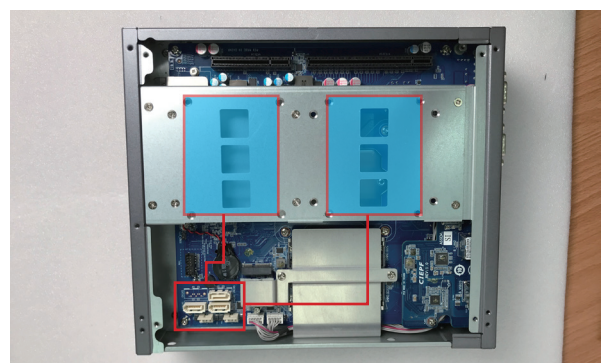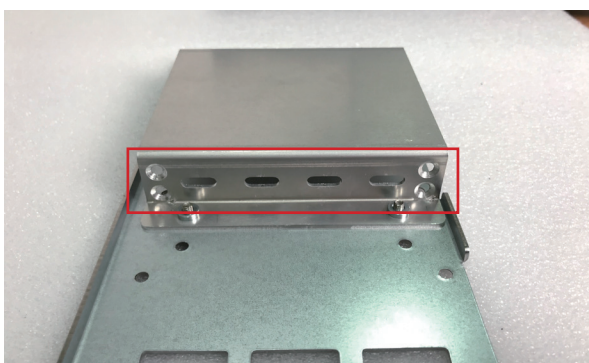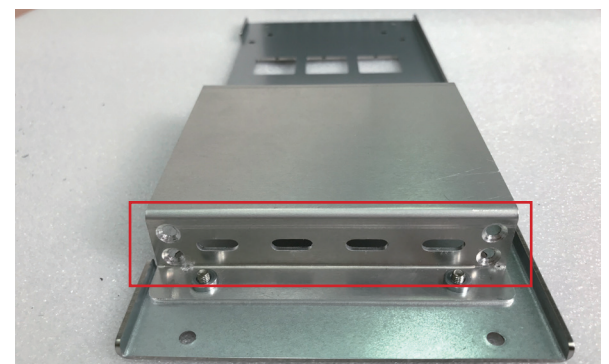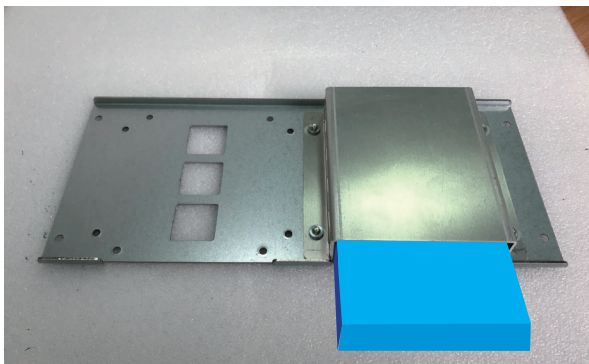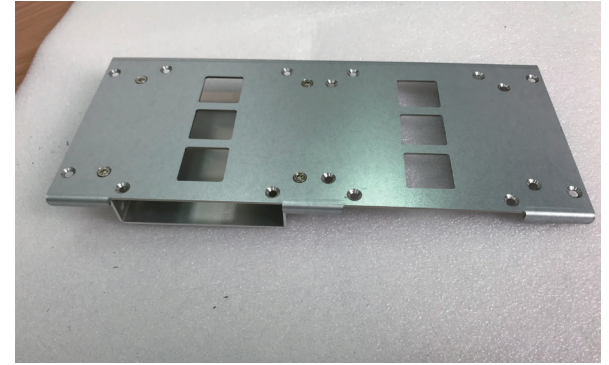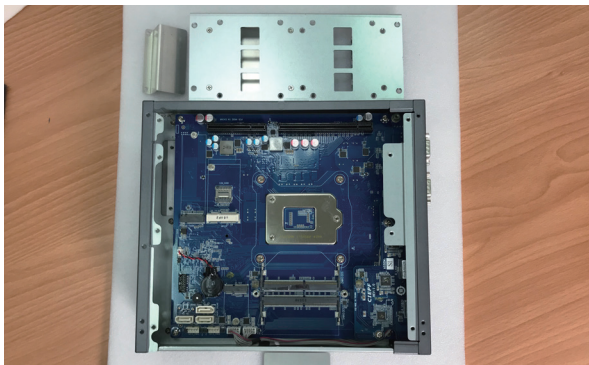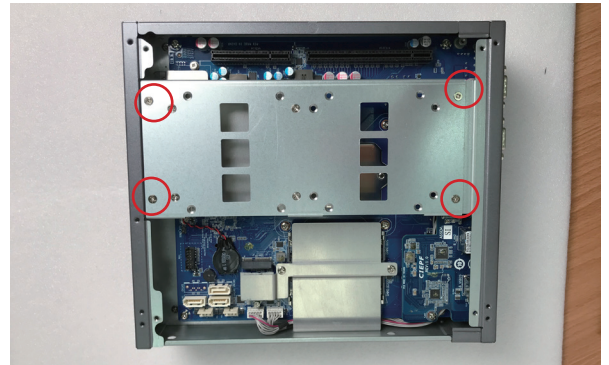
Storage Installation 2 (M2M Storeage)

1. Loosen 4 screws, and then remove the bottom cover
2. Loosen 4 screws to remove the hard disk storage aluminum sheet
3. Loosen the 2 screws to remove the aluminum heat sink and thermal pad.
4. Assemble the M2M (NGFF-2280 SATA) storage hard drive.
5. Install the 2 screws to securely replace the aluminum heat sink and heat sink paste.
6. Install 4 screws to firmly install the hard disk storage aluminum sheet
7. Replace the bottom cover and secure with screws.
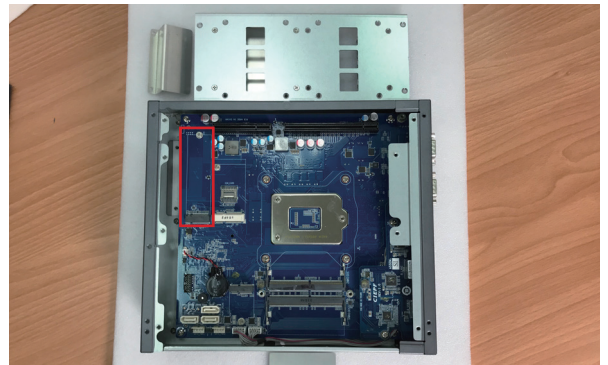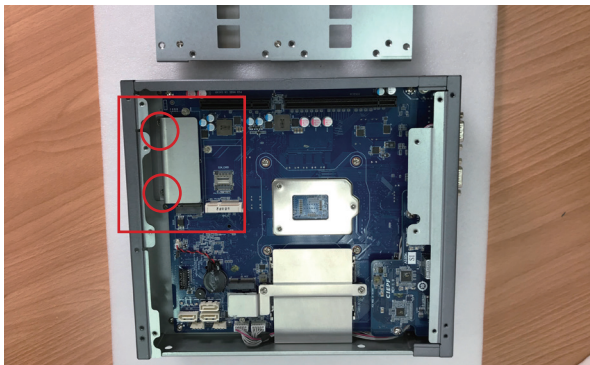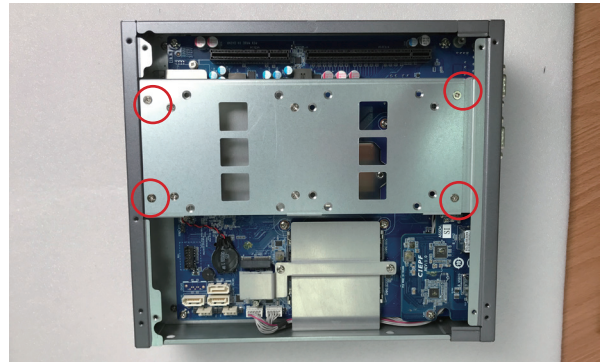
Mini-PCIe Slot (PCIeX1 + USB2.0) and SIM Card Slot Installation
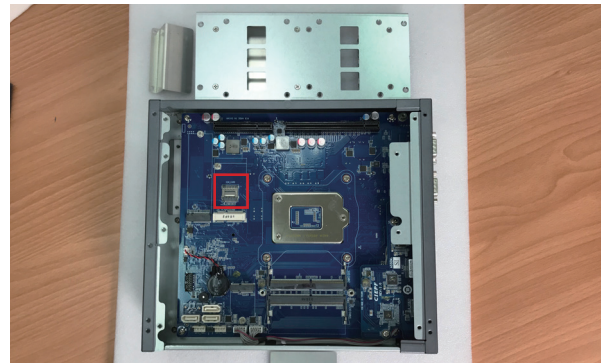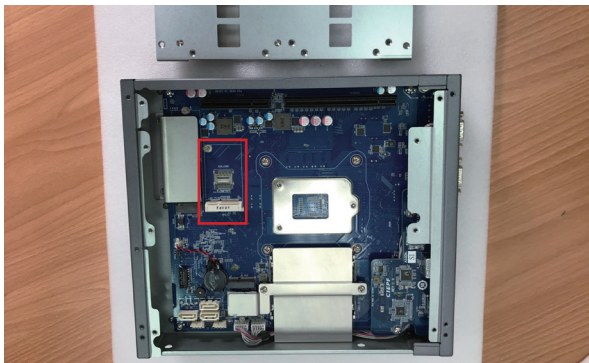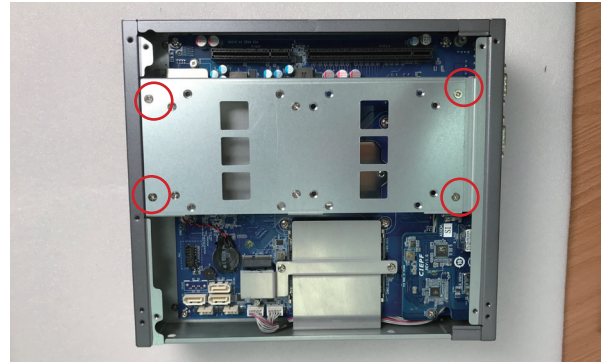
QBiX-JMB-CFLA310H-A1 supports one full size Mini-PCIe.

1. Loosen 4 screws, and then remove the bottom cover
2. Loosen 4 screws to remove the hard disk storage aluminum sheet
3. Assemble the Mini-PCIe expansion Card (Mini-PCIeX1 + USB2.0) or 3G/4G SIM Card in SIM Slot.
4. Install 4 screws to firmly install the hard disk storage aluminum sheet
5. Replace the bottom cover and secure with screws.

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Safety Instructions

1. Read these safety instructions carefully.

2. Keep this Startup Manual for later reference.

3. Disconnect this equipment from any AC outlet before cleaning. Use a damp cloth. Do not use liquid or spray detergents for cleaning.

4. For plug-in equipment, the power outlet socket must be located near the equipment and must be easily accessible.

5. Keep this equipment away from humidity.

6. Put this equipment on a reliable surface during installation. Dropping it or letting it fall may cause damage.

7. The openings on the enclosure are for air convection. Protect the equipment from overheating. DO NOT COVER THE OPENINGS.

8. Make sure the voltage of the power source is correct before connecting the equipment to the power outlet.

9. Position the power cord so that people cannot step on it. Do not place anything over the power cord.

10. All cautions and warnings on the equipment should be noted.

11. If the equipment is not used for a long time, disconnect it from the power source to avoid damage by transient overvoltage.

12. Never pour any liquid into an opening. This may cause fire or electrical shock.

13. Never open the equipment. For safety reasons, the equipment should be opened only by qualified service personnel.

14. If one of the following situations arises, get the equipment checked by service personnel:

• The power cord or plug is damaged.

• Liquid has penetrated into the equipment.

• The equipment has been exposed to moisture.

• The equipment does not work well, or you cannot get it to work according to the user's manual.

• The equipment has been dropped and damaged.

• The equipment has obvious signs of breakage.

15. DO NOT LEAVE THIS EQUIPMENT IN AN ENVIRONMENT WHERE THE STORAGE TEMPERATURE MAY GO BELOW -40°C (-40°F) OR ABOVE 85°C (185°F). THIS COULD DAMAGE THE EQUIPMENT. THE EQUIPMENT SHOULD BE IN A CONTROLLED ENVIRONMENT.

16. CAUTION: DANGER OF EXPLOSION IF BATTERY IS INCORRECTLY REPLACED. REPLACE ONLY WITH THE SAME OR EQUIVALENT TYPE RECOMMENDED BY THE MANUFACTURER, DISCARD USED BATTERIES ACCORDING TO THE MANUFACTURER'S INSTRUCTIONS.

17. RESTRICTED ACCESS AREA: The equipment should only be installed in a Restricted Access Area.

18. DISCLAIMER: This set of instructions is given according to IEC 704-1. GIGAIPC disclaims all responsibility for the accuracy of any statements contained here in.