GIGAIPC

QBiX-JMB-CFLA310HG-A1

Industrial System with Intel® H310 Chipset, Support for Intel® 8th/9th Gen. Core™ i Processor and Discrete GFX card support

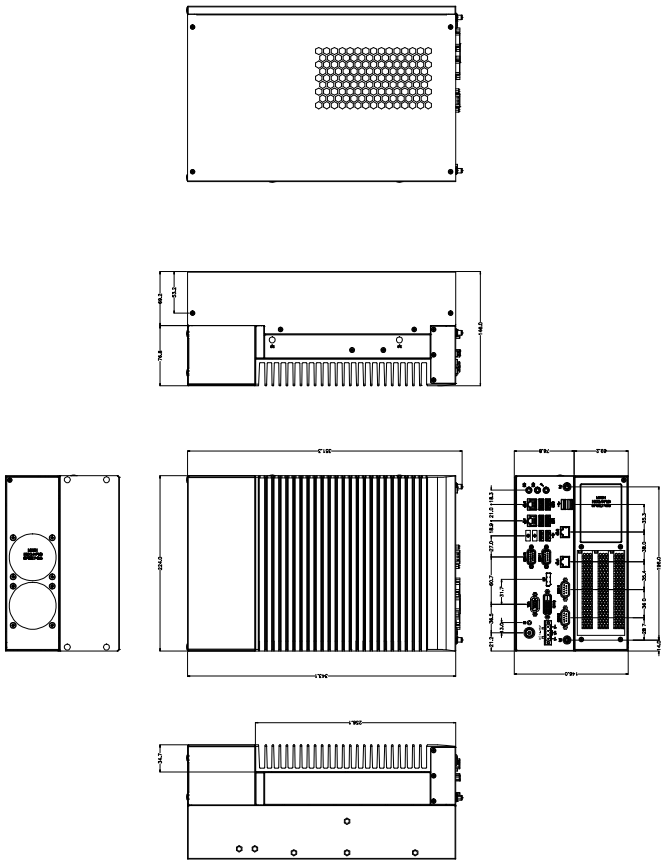
Startup Manual

Packing List

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

1. Cable Power #20 350mm (25CRI-350902-H3R)
2. Screw #6-32x4L x 11 (25KS2-13004F-S0R)
3. Terminal Blocks Male Plug (25IO0-2ESDV0-D2R)

Dimension



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.

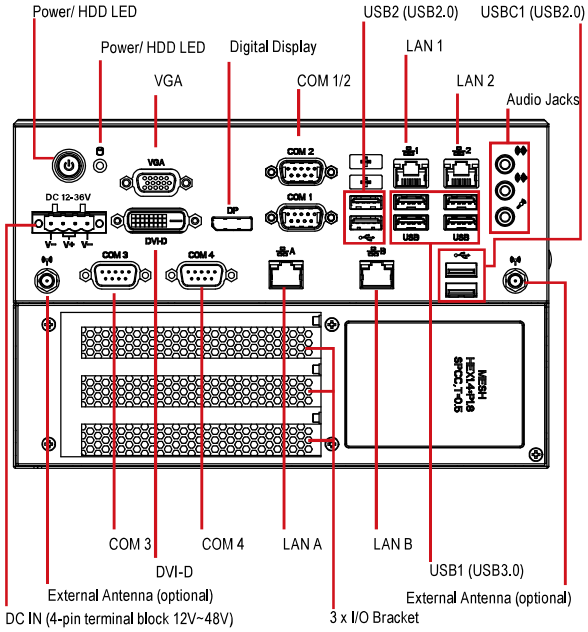
Specifications

Dimension	System Size : 224W x 343D x 146H(mm) - Discrete GFX max 250W support.(Optional)
CPU	Support for 9th/8th Generation Intel® Core™ i7/i5/i3, Pentium® and Celeron® 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 Port (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 @60Hz 1 x D-Sub port, supporting a maximum resolution of 1920x1200 @60Hz 1 x DP port, supporting a maximum resolution of 4096x2160 @30Hz (2 independent display outputs)
Audio	Realtek® Audio Codec
Storage	3 x 2.5" HDD/SSD (SATA 6Gb/s)
Expansion Slots	1 x 2280 M.2 M-Key (SATA 6Gb/s) 1 x 2230 M.2 E-Key (WiFi/BT) 1 x Full-size Mini PCIe with SIM slot (PCIe x1 + USB2.0) -- support 3G/4G module 1 x PCIe slot -- Discrete riser card support

Front I/O	1 x Power Switch/Power/HDD LED 3 x Audio Jacks (Line in, Line out, Mic in) 1 x Display port 1 x DVI-D 1 x VGA 2 x COM Ports (RS-232/422/485 & RI/5V/12V) 2 x COM Ports (RS-232) 4 x RJ45 LAN Ports 4 x USB 3.2 Gen 1 4 x USB 2.0 1 x 4-pin Terminal Block 2 x External Antenna Holes (Optional)
Riser Card (Optional)	PCIe x4 (Gen3 x1) PCIe x16 (Gen3 x16) -- Discrete GFX card : Max. 250W, Max. length 293mm (D)
Rear I/O	—
Power	+24V~48VDC (full Range) -- Support discrete GFX card
Operation Temperature	For Main system : Operating temperature: -20°C to 50°C (CPU TDP 65W) Operating temperature: -20°C to 60°C (CPU TDP 35W) For Full system : Depends on the Graphic cards installed in the system 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	Carton size: 460 x 315 x 279 (mm) Packing Capacity: 1pc Content: CABLE POWER #20 350mm (25CRI-350902-H3R) SCREW M3x4L x 12 (25984G-1C014-S00) SCREW M3x5L x 8 (25983G-1C011-S00) SCREW #6-32x5L x 3 (2598EG-1C002-S00) TERMINAL BLOCKS MALE PLUG x 1 (25IO0-2ESDV0-D2R)

Oeder Information	System: 9BQJH310AMR-SI & 6BQJH310APR-SI (Built in Components: Please contact with your sales representative for more information or e-mailed to : sales@gigaipc.com)

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.

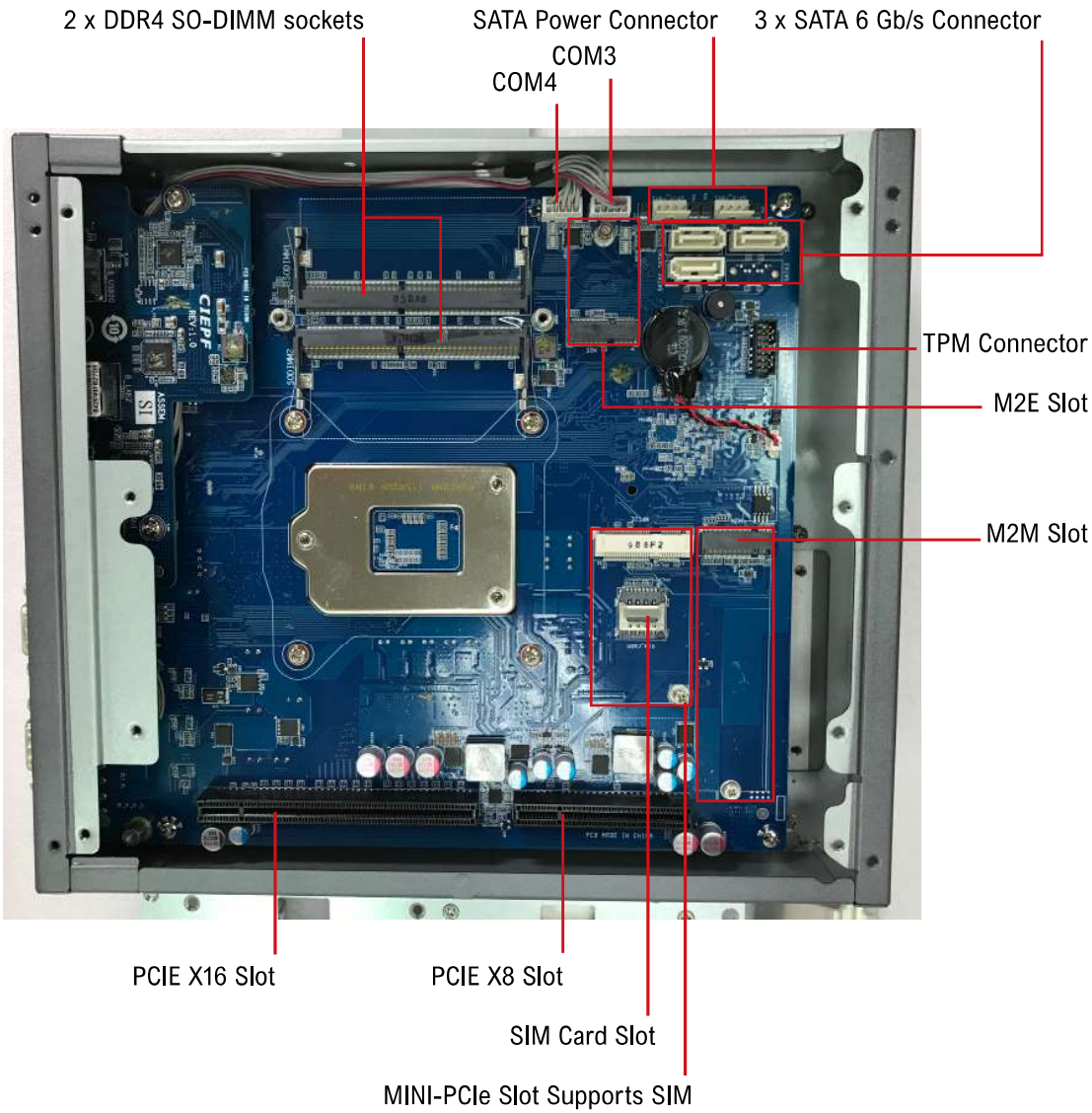
Front I/O Connectors

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

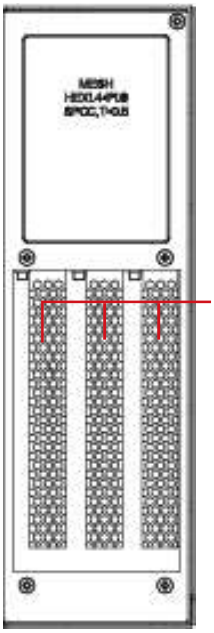
Front I/O Connectors

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)

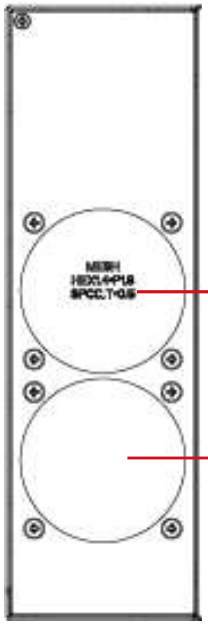
Internal I/O Connectors



Expansion Front View

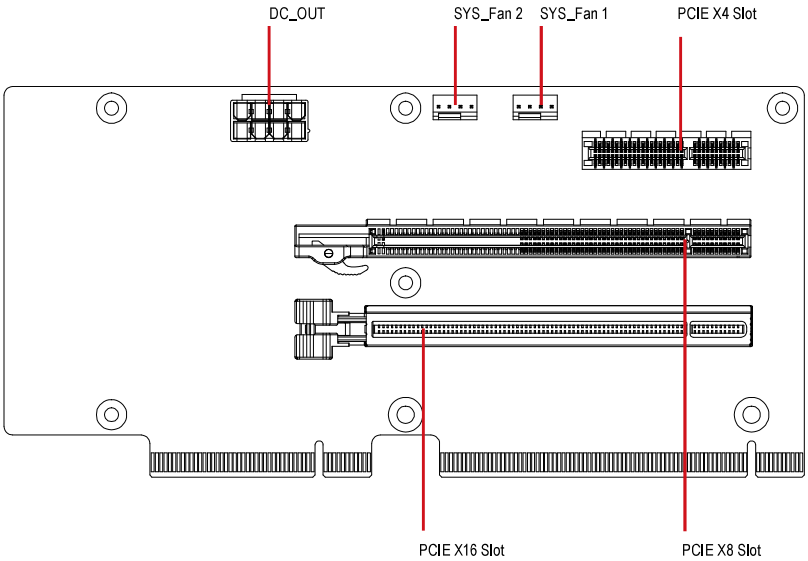


Expansion Rear View

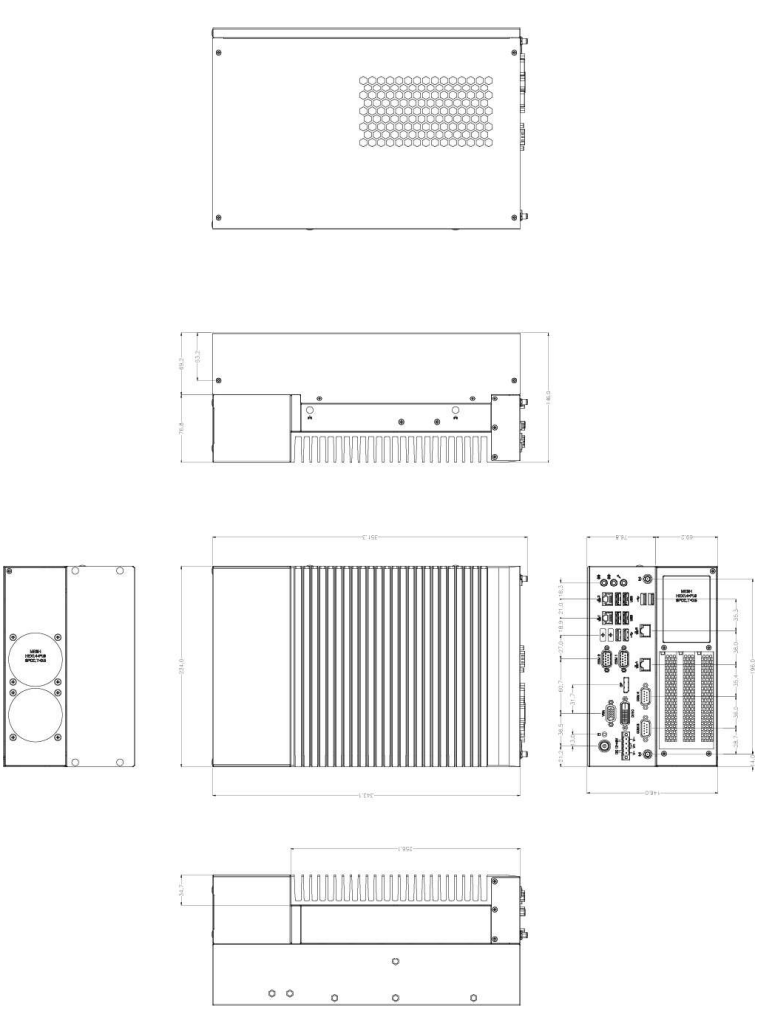


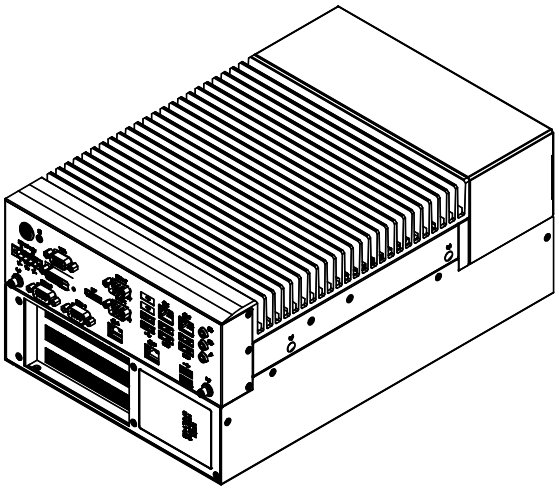
Expansion I/O Connectors

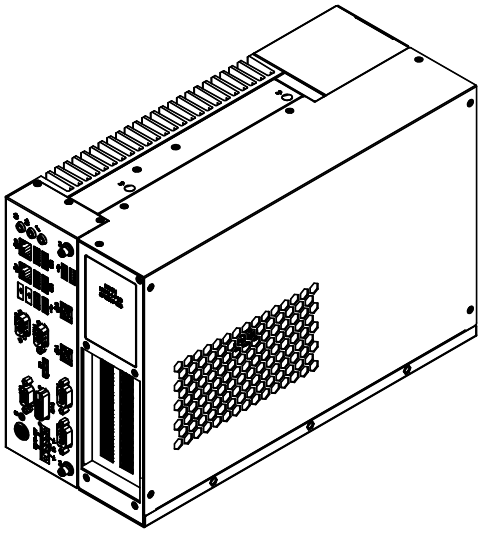
No.	Code	Scription
1	DC_OUT	GPU Power Supply Connector DC Output
2	SYS_FAN1	Fan1 Power Connector
3	SYS_FAN2	Fan2 Power Connector
4	PCIEX4	PCIE X4 Slot
5	PCIEX8	PCIE X8 Slot
6	PCIEX16	PCIE X16 Slot

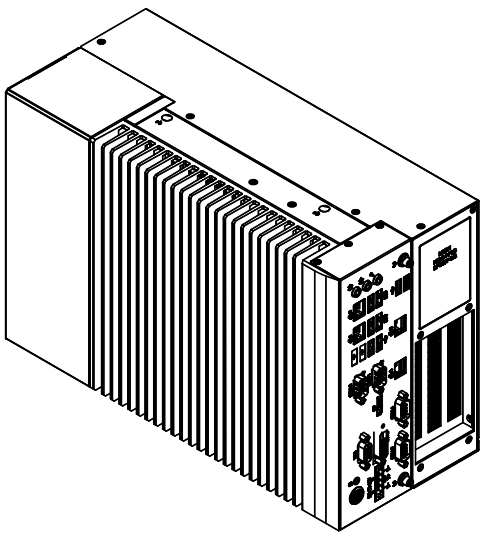


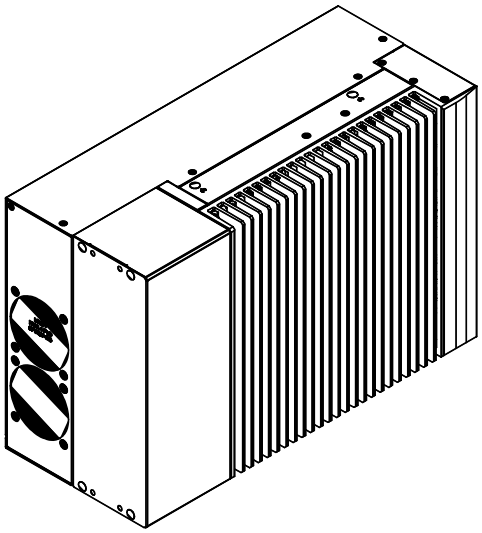
System Dimensions









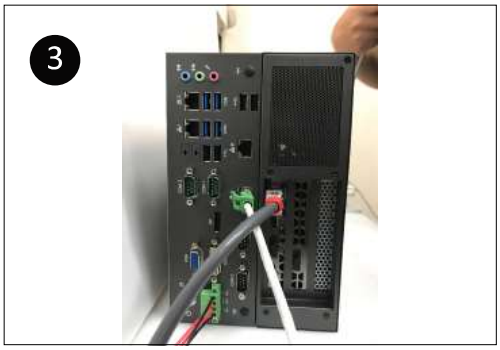


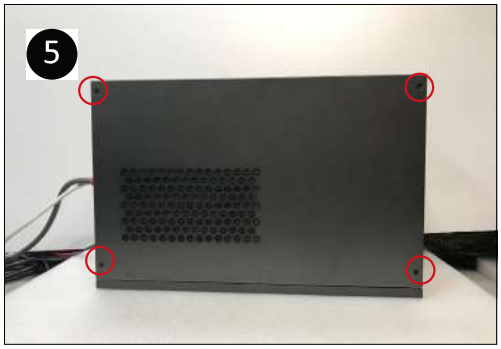
Simple Installation Process

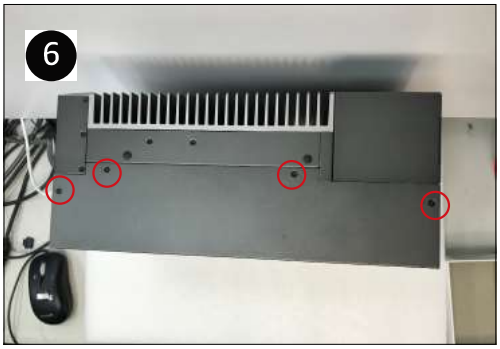
Disassemble the QBiX-JMB-CFLA310HG-A1 PCI-E extension chassis

QBiX-JMB-CFLA310HG-A1 can combain with QBiX-JMB-CFLA310H-A1 and Expansion PCIE Slot Chassis.

1. Before disassembling the host, please remove the power supply and the cable on the IO. Figure 3, Figure 4
2. Use a Phillips screwdriver to remove the screws in the red circle in Figure 5 and Figure 6.
3. After the screws are removed, open the iron case as shown by the arrow (arrow 1 in Figure 9), and then lift it up (arrow 2 in Figure 10) to remove the case.



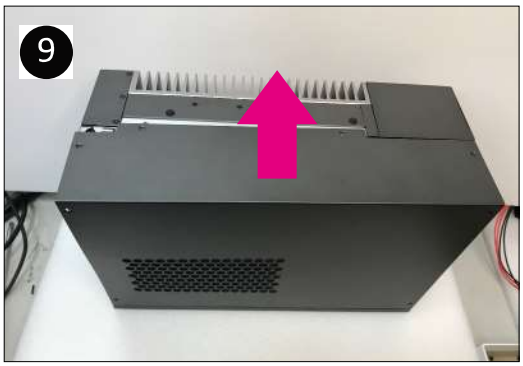


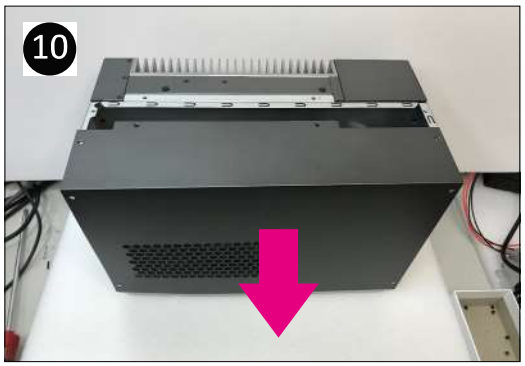


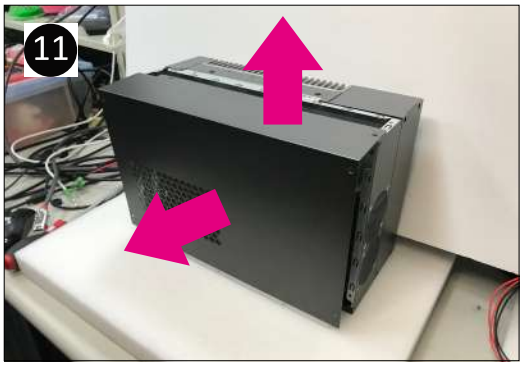
Disassemble the QBiX-JMB-CFLA310HG-A1 PCI-E extension chassis (Cont.)

QBiX-JMB-CFLA310HG-A1 can combain with QBiX-JMB-CFLA310H-A1 and Expansion PCIE Slot Chassis.

1. Before disassembling the host, please remove the power supply and the cable on the IO. Figure 3, Figure 4
2. Use a Phillips screwdriver to remove the screws in the red circle in Figure 5 and Figure 6.
3. After the screws are removed, open the iron case as shown by the arrow (arrow 1 in Figure 9), and then lift it up (arrow 2 in Figure 10) to remove the case.



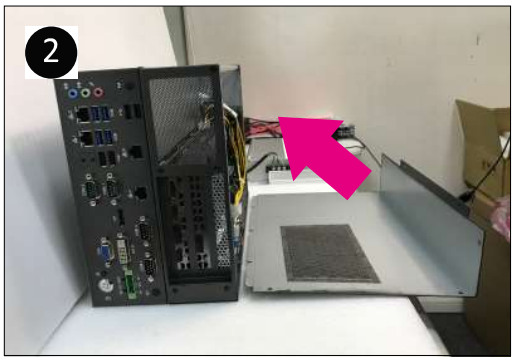


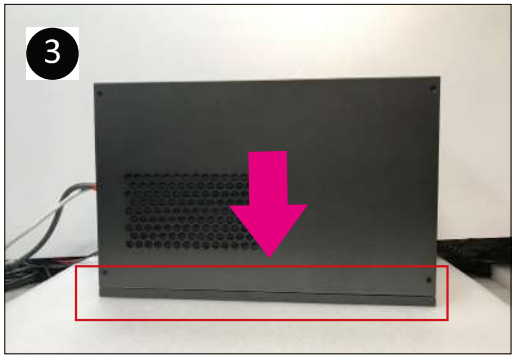


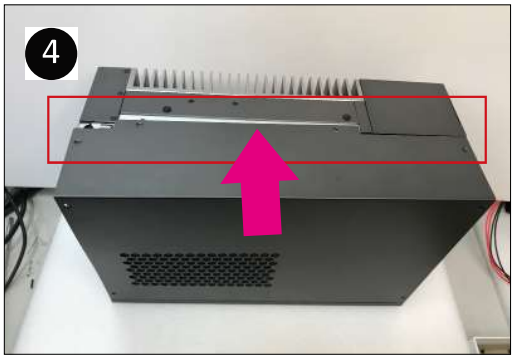
Simple Installation Process

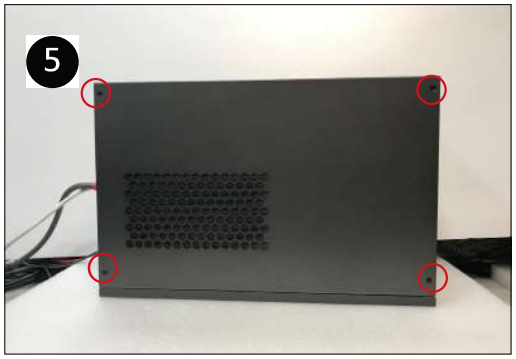
QBiX-JMB-CFLA310HG-A1 can combain with QBiX-JMB-CFLA310H-A1 and Expansion PCIE Slot Chassis.

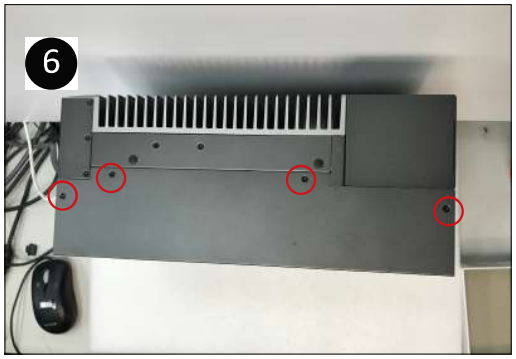
1. Align the three grooves at the bottom of the case with the three iron posts in the fuselage (as shown in Figure 1 and Figure 2), and place them from top to bottom (as shown in Figure 3)
2. Place the upper edge of the iron shell against the upper edge of the fuselage iron sheet, align the screw holes, and lock the screws (as shown in Figure 5 and Figure 6) to complete the installation.





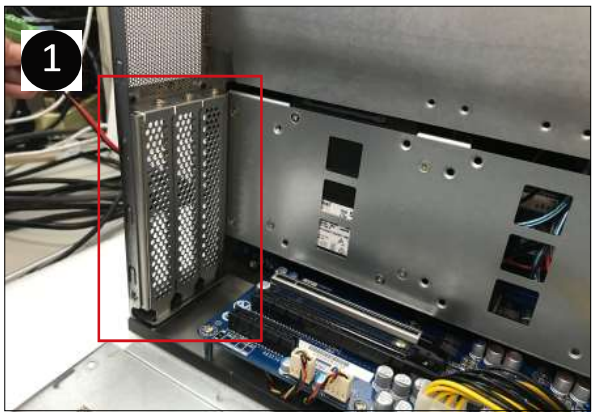


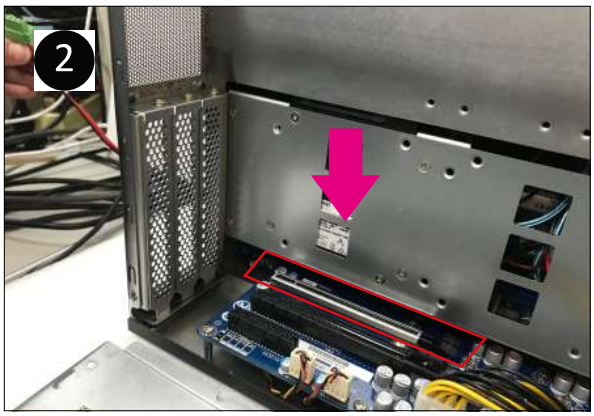


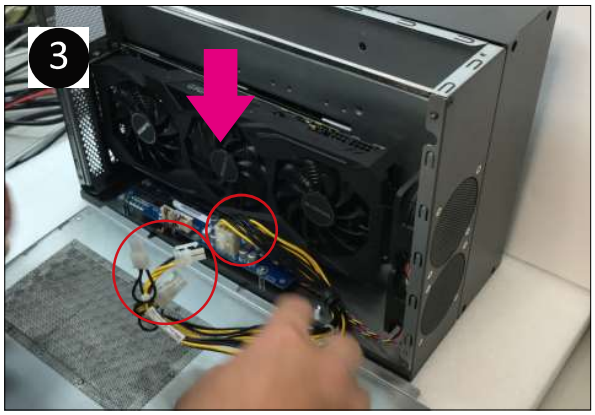


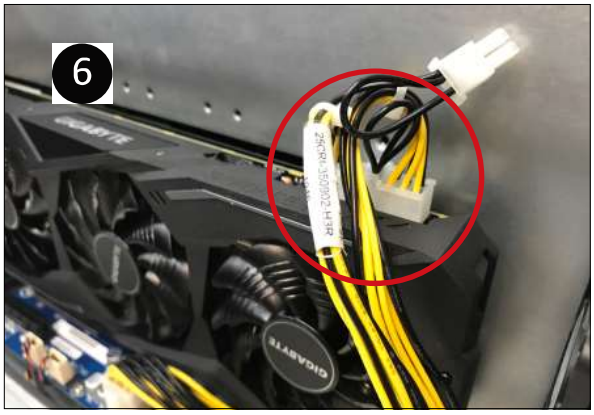
GPU Card Bracket Assembly

1. Please use a screwdriver to remove the screws on the IO baffle plate (as shown in Figure 1), and then insert the graphics card into the PCI-E slot in Figure 2 from top to bottom.
2. Connect the power cord in the extension card to the power connector on the graphics card (Figure 3~Figure 6)
3. Reinstall the case back to the fuselage and lock the screws.









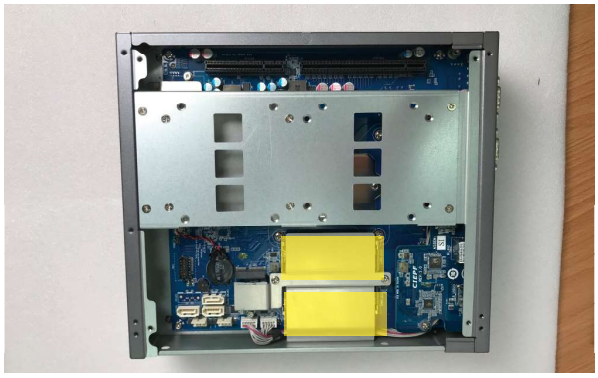
Memory Installation

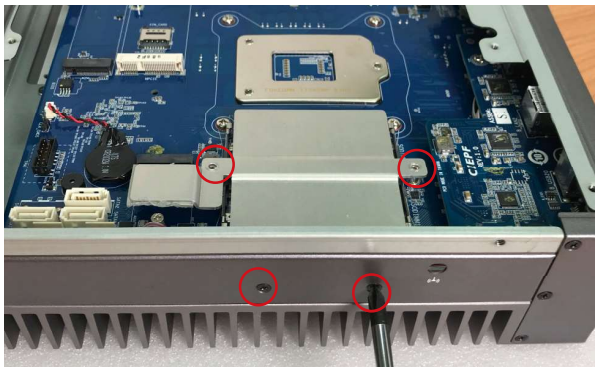
QBiX-JMB-CFLA310H-A1 supports DDR4 SO-DIMM type memory module.

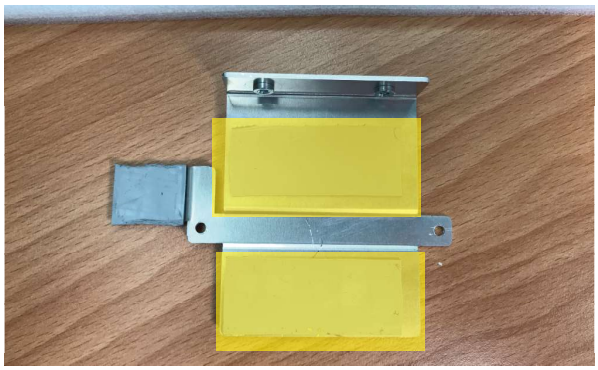
1. Loosen 4 screws and remove the bottom cover.
2. Loosen 4 screws to remove memory thermal cover.
3. Affix thermal pad on memory and assemble memory.

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.

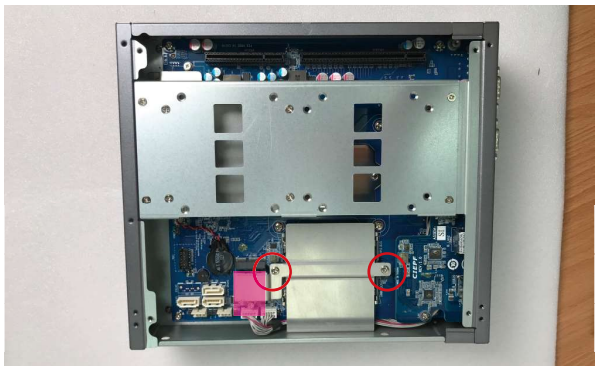


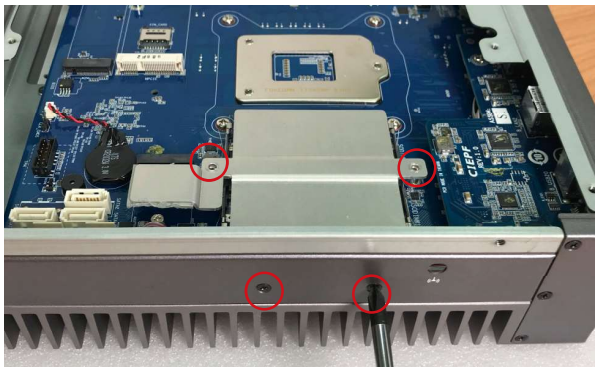


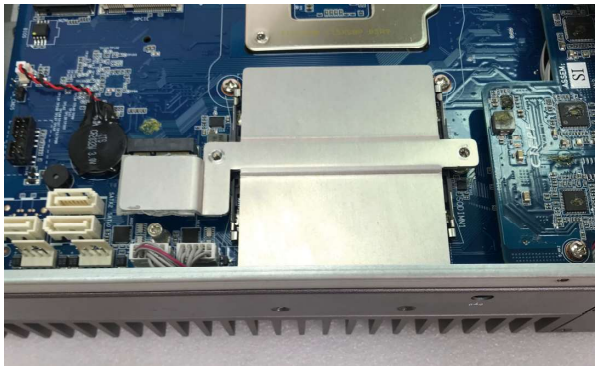


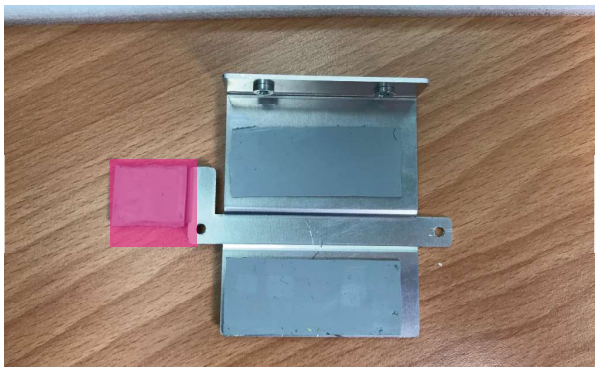
M2E (Support NGFF-2230 Wifi/BT) Installation

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.



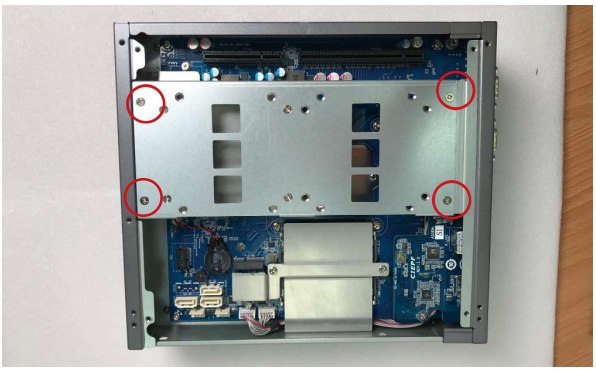


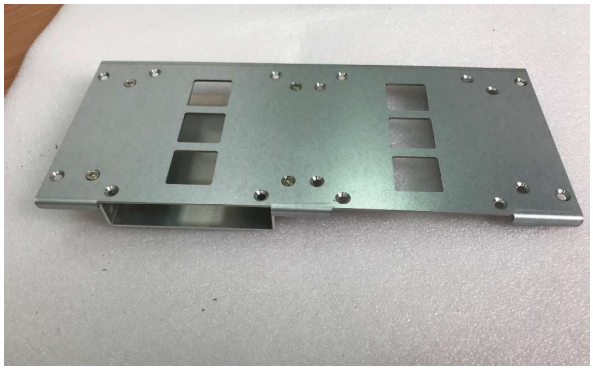


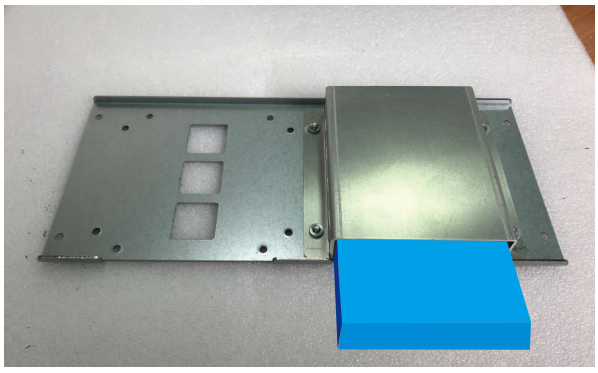


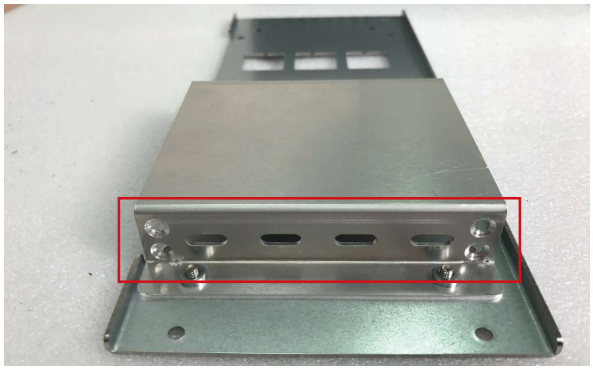
Storage Installation 1 (2.5” HDD/SSD)

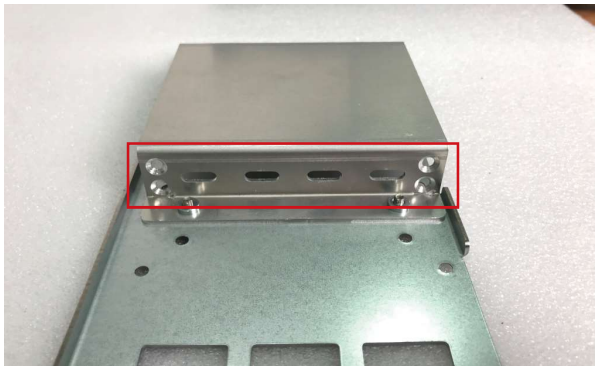
1. Loosen 4 screws and remove the bottom cover
2. Loosen 4 screws to remove storage tray.
3. Secure storage with 4 x screws.
4. Assemble SATA cable/power cable and replace storage tray securely with 4 x screws.
5. Replace the bottom cover and secure with screws.

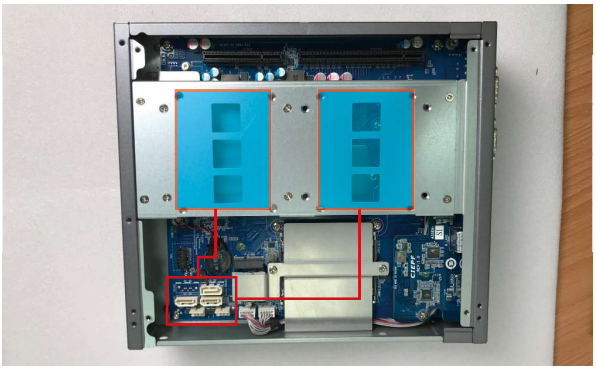






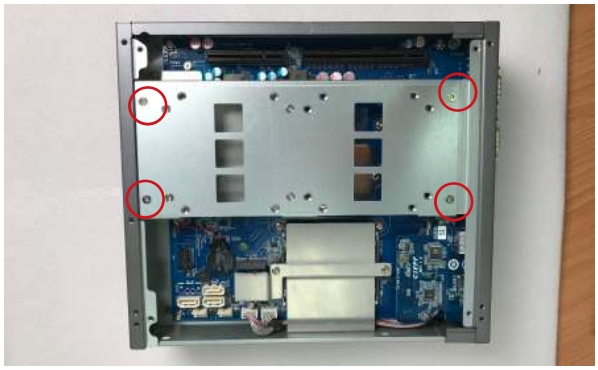






Storage Installation 2 (M2M Storeage)

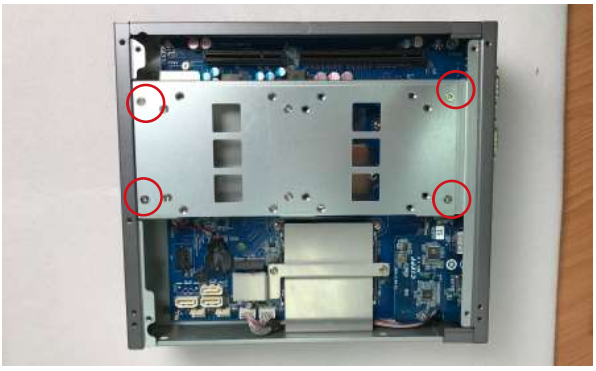
1. Loosen 4 screws, and then remove the bottom cover
2. Loosen 4 screws to remove the hard disk storage aluminum sheet
3. Loosen the 2 screws to remove the aluminum heat sink and thermal pad.
4. Assemble the M2M (NGFF-2280 SATA) storage hard drive.
5. Install the 2 screws to securely replace the aluminum 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.



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.