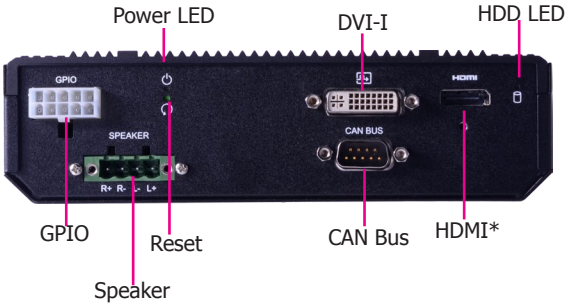
VC230-AL Installation Guide

Package Contents

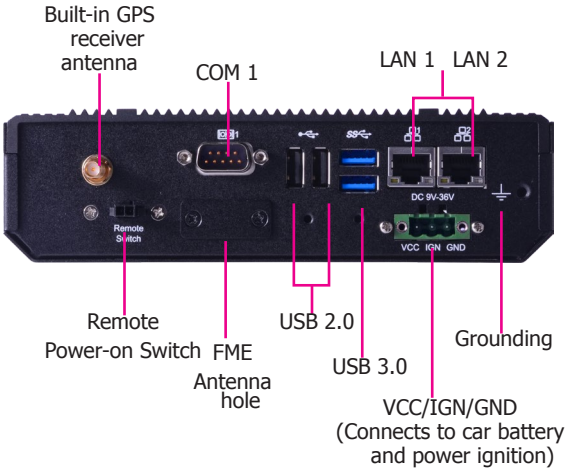
- 1 VC230-AL system unit
- Mounting screws for Mini PCIe modules and SATA drive installation
- 1 Quick Installation Guide

Panel

Front View



Rear View



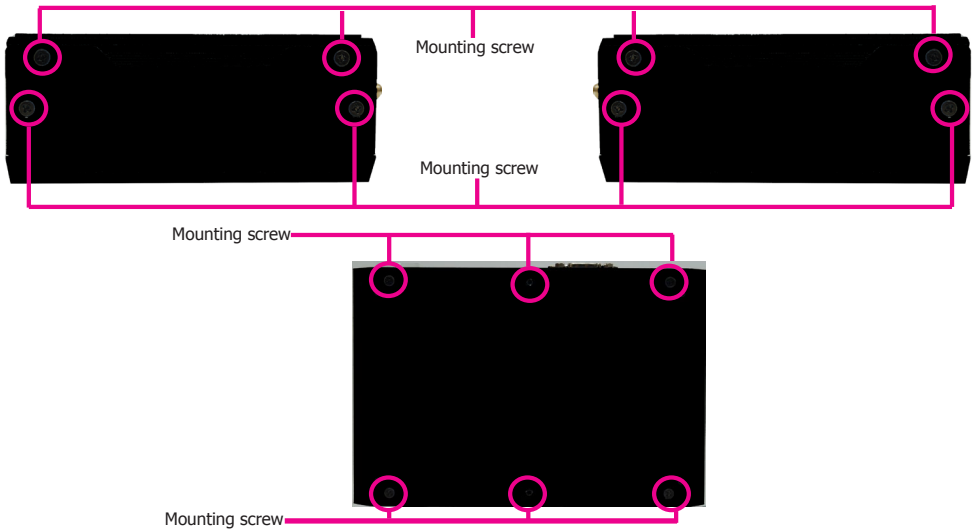
Note:

The HDMI is a DP/HDMI combo port but can only transmit HDMI signals. Please plug in an HDMI cable with the right orientation and alignment to avoid damage to the connector. Please see a video at https://youtu.be/SUj07rfN5l8 for detailed instructions.

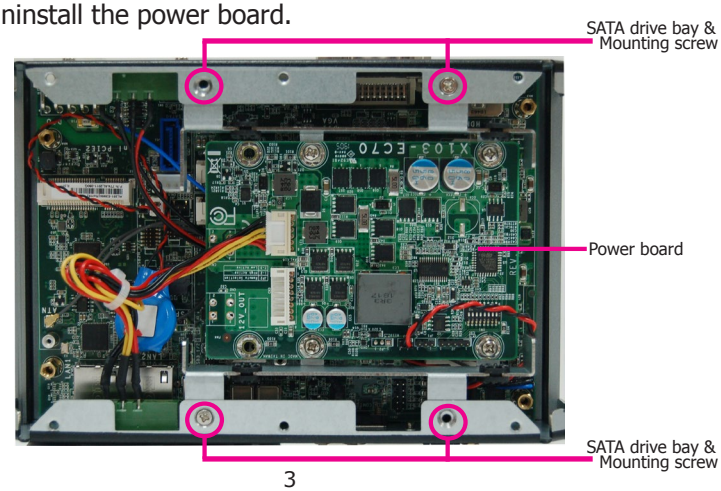
Removing the Chassis Cover

Please observe the following guidelines and follow the procedure to open the system.

1. Make sure the system and all other peripheral devices connected to it have been powered off.
2. Disconnect all power cords and cables.
3. The 14 mounting screws on the bottom and two sides of the system are used to secure the cover to the chassis. Remove these screws and then put them in a safe place for later use.

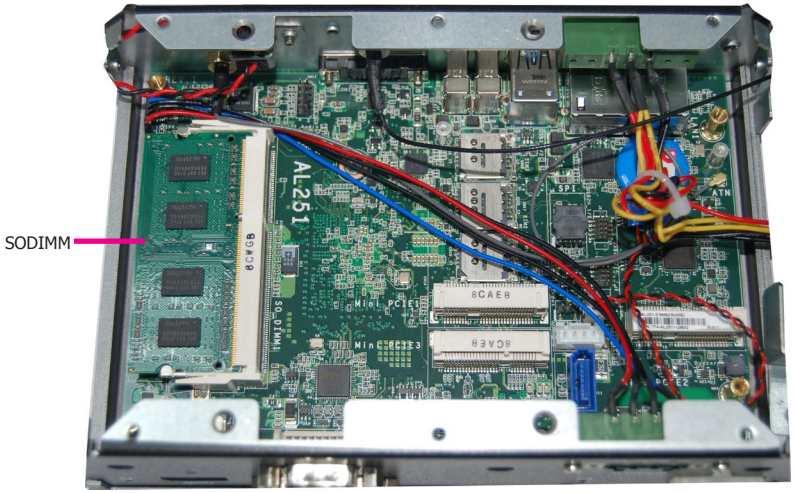


4. After removing the mounting screws, lift the chassis cover to open the system. To access the SODIMM and Mini PCIe and SIM card slots, remove the four screws to uninstall the power board.



Installing a SODIMM

The system supports one DDR3L-1600/1866 up to 8GB. To install a memory module, grasp the memory module by its edges and align the module's notch with the socket's notch; then insert the memory into the socket at an angle and push it down until you feel a click.

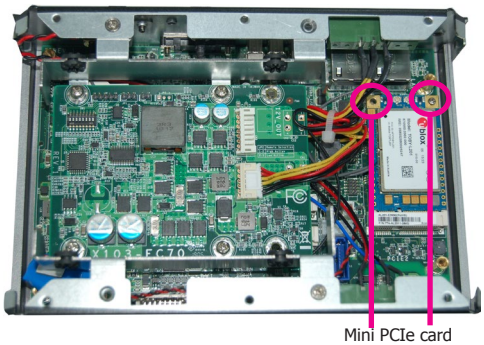


Note:
The SODIMM socket can only accept DDR3L memory modules.

Installing a Mini PCIe Card

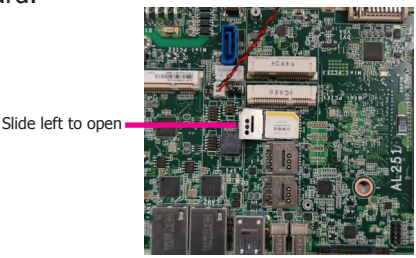
The system board is equipped with 3 Mini PCIe slots: two full-size (Mini PCIe1: support for dual micro SIM sockets 1& 2 ; Mini PCIe2: support for micro SIM socket 3) and one half-size slots. Here we will demonstrate the installation of a full-size Mini PCIe card (mSATA interface) for capacity expansion.

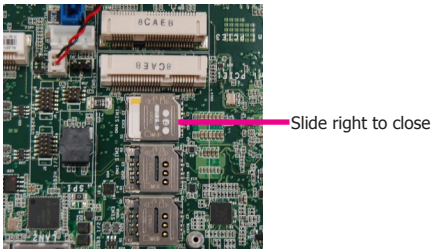
To install a Mini PCIe card:
Grasp the Mini PCIe card by its edges and align the notch in the connector of the PCIe card with the notch in the connector on the system board. Push the Mini PCIe card down and use the provided mounting screws to secure the card on the system board.



Installing a SIM Card

Open the SIM card socket by pushing the white latch inward. Slide the card holder left to open it. Place the card with the IC facing down and the angled corner aligning with the socket's angled corner so it will be correctly in contact with the system board.

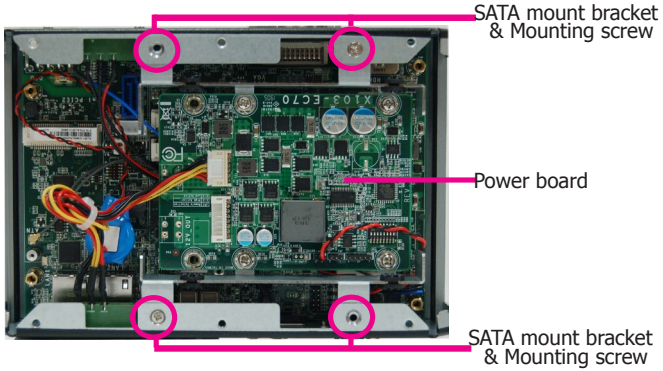




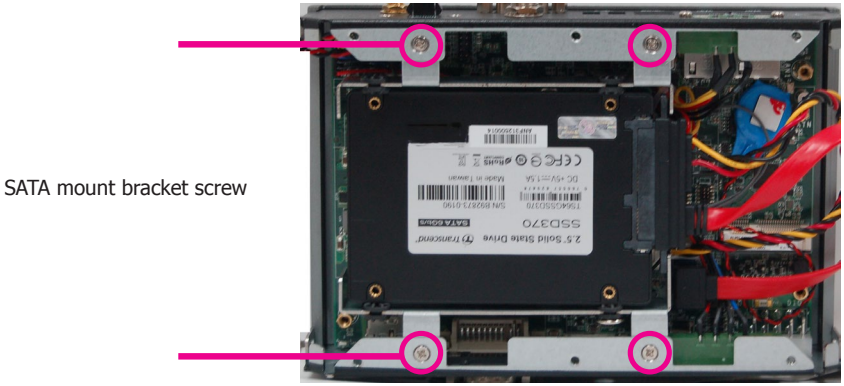
Note:
The system also has one additional full-size Mini PCIe and one half-size Mini PCIe slot that use PCIe (PCIe/USB signals) and mSATA (SATA signals) interface respectively.

Installing a SATA Drive

The system supports one SATA drive. To install a SATA drive, uninstall the SATA mount bracket from the system.

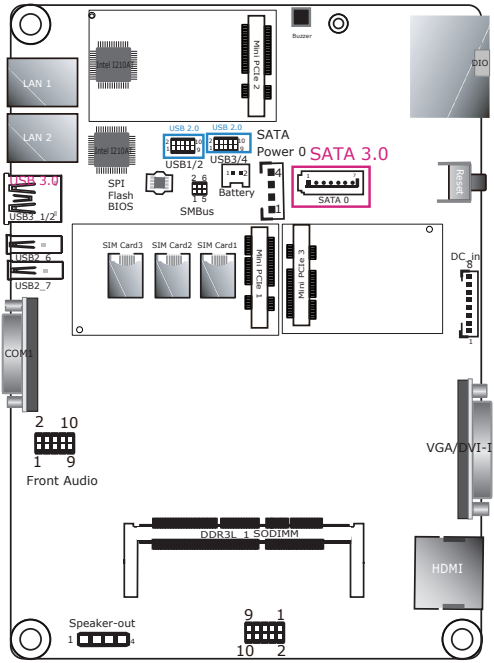


Install the SATA on the SATA mount bracket and place the installed SATA drive back in the system and secure it with 4 mounting screws.

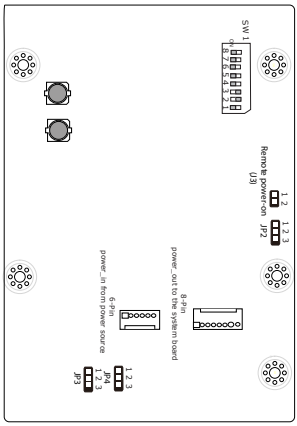


Board Layout and Connector Pin Assignments

System Board



Power Board



DC-out to the System Board Connector (8-pin)			
1	Ground	2	Ground
3	Power Off	4	UART_TX
5	UART_RX	6	12V
7	12V	8	12V

DC-in from Power Source (6-pin)			
1	Ground	2	Ground
3	IGN	4	IGN
5	VCC	6	VCC

Power-on Switch (J3)			
1	Power-on	2	Ground

Remote Switch Active Signal (JP2)			
1-2	Active on low	2-3 (default)	Active on high

Host Bus Selection (JP3 & JP4)			
1-2	Reserved	2-3 (default)	UART

Note:

When selecting the communication method for host bus, please set JP3 and JP4 together.

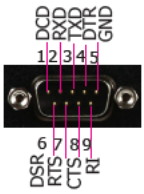
Front Audio			
1	Mic_L	2	Ground
3	Mic_R	4	NC
5	Line_Out_R	6	MIC_JD
7	GND	8	NC
9	Line_Out_L	10	LINE_JD

Speaker-OUT Connector (J4)			
1	L+	2	L-
3	R-	4	R+

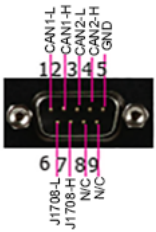
DC-in Connector (J12)			
1	Ground	2	Ground
3	Power Off	4	UART_TX
5	UART_RX	6	12V
7	12V	8	12V

USB 2.0 1/2 (J5), 3/4 (J6)			
1	Vcc	2	Vcc
3	-Data0	4	-Data1
5	+Data0	6	+Data1
7	Ground	8	Ground
9	Key	10	NC

COM 1



CAN bus



SMBus Connector (J10)			
1	+3.3V_standby	2	GND
3	SMBUS Clock	4	SMBUS Data
5	SMBUS_Alert	6	NC

GPIO

GPIO			
1	GPI0	2	GPI1
3	GPI2	4	GPI3
5	Power	6	GPO0
7	GPO1	8	GPO2
9	GPO3	10	GND

Delay Turn-on/off Switch

The DIP switch (SW1) on the power board can be used to turn on or off the system at a specific on/off delay time via car ignition.

SW1-1: 12V/24V Input Type

This is the selection for power input type. Please make sure this setting matches the power input voltage; if not, the system may not be powered on.

On (default)	12V
Off	24V

SW1-2: System-on delay enable/disable

This is the selection for enabling the system-on delay function.

On	Enable (delay time setting adjustable by SW1-4 and 1-5 as shown below)
Off (default)	Delay time value will be set in the BIOS (Please refer to the "Vehicle" tab in the BIOS)

SW1-4 and 1-5: System-on delay time setting

Use this switch to set system-on delay time. Please note this setting only works if SW1-2 is set to "ON".

4	5	Time
On	On	10 sec (default)
Off	On	30 sec
On	Off	1 min
Off	Off	5 min

SW1-3: System-off delay enable/disable

On	Enable (delay time setting adjustable by SW1-6, 1-7 and 1-8 as shown below)
Off (default)	Delay time value will be set in the BIOS (Please refer to the "Vehicle" tab in the BIOS)

SW1-6, 1-7 and 1-8: System-off delay time setting

Use this switch to set system-off delay time. Please note this setting only works if SW1-3 is set to "ON".

6	7	8	Time
On	On	On	30 sec (default)
Off	On	On	1 min
On	Off	On	3 min
Off	Off	On	5 min
On	On	Off	10 min
Off	On	Off	15 min
On	Off	Off	30 min
Off	Off	Off	1 system-off delay

Note:

The OS will start the shutdown procedure after the car ignition switches off and will complete system shutdown within the specified system-off delay time. Please make sure that system-off delay time is sufficient to allow the OS to shut down completely.