FIT0677
Aluminum Heatsink Case for LattePanda V1

Assembly Manual

DFROBOT
DRIVE THE FUTURE

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Check all the parts in the package and make sure the parts are complete.

- The top panel (with Logo) x1
- The side panel x4
- L Bracket x2
- L Bracket with wing shaped plate x2
- Heat-dissipation module x1
- Switch button x2
- IPEX to SMA adapter x1
- SMA Wi-Fi & BT antenna x1
- Thermal pad x2
- M3 cross screw x12

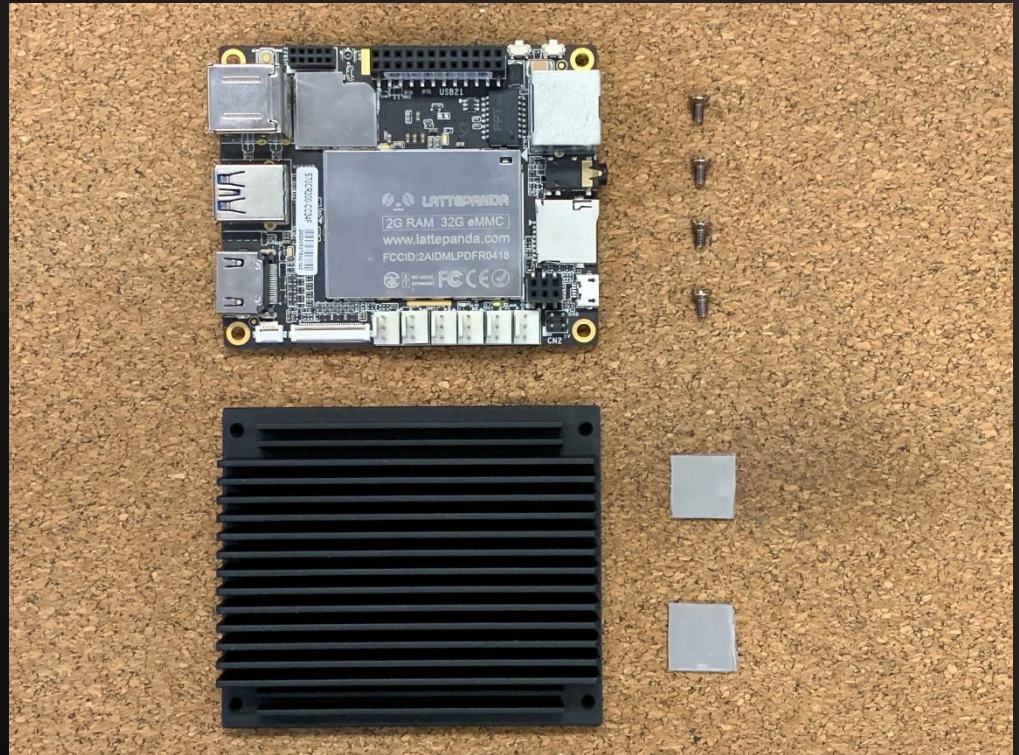Note: A **M3 Cross Screwdriver** is needed during the assembly.

Assembly of the Heatsink

The parts used:
- LattePanda board x1
- Heat dissipation module x1
- Thermal pad x2
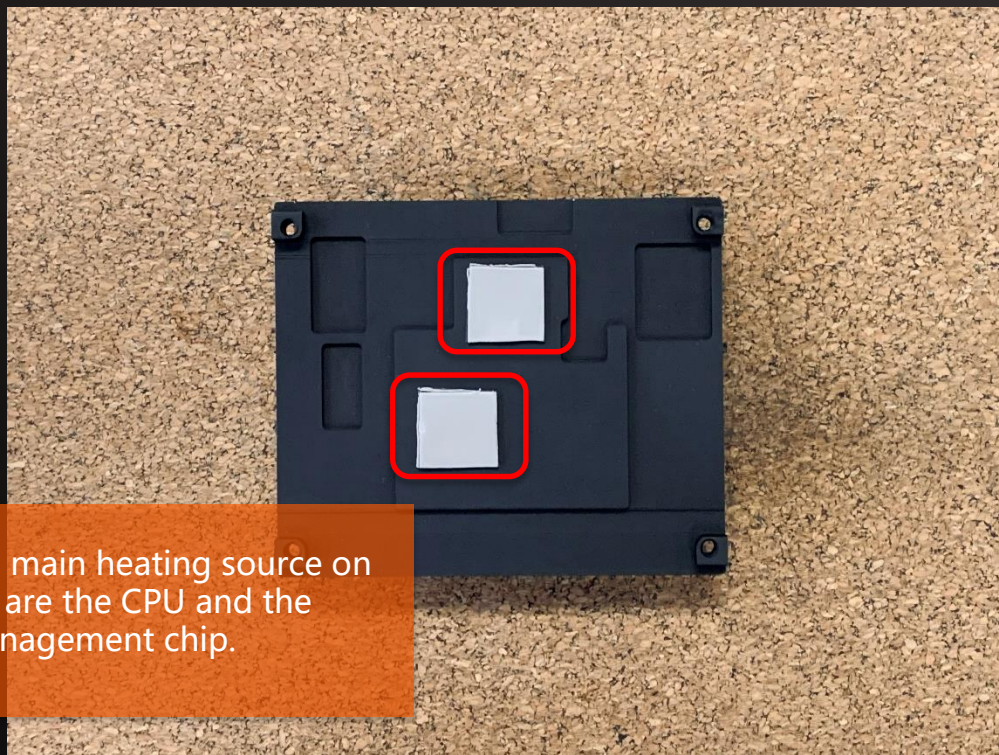- M3 cross screw x4

02 Assembly

Fit Thermal Pad

The parts used:
- Heat-dissipation module x1
- Thermal pad x2

Guide:
1. Split plastic films on both sides of the thermal pad.
2. Fit the thermal pads on these two positions indicated with red frame lines.

These two main heating source on the board are the CPU and the power management chip.
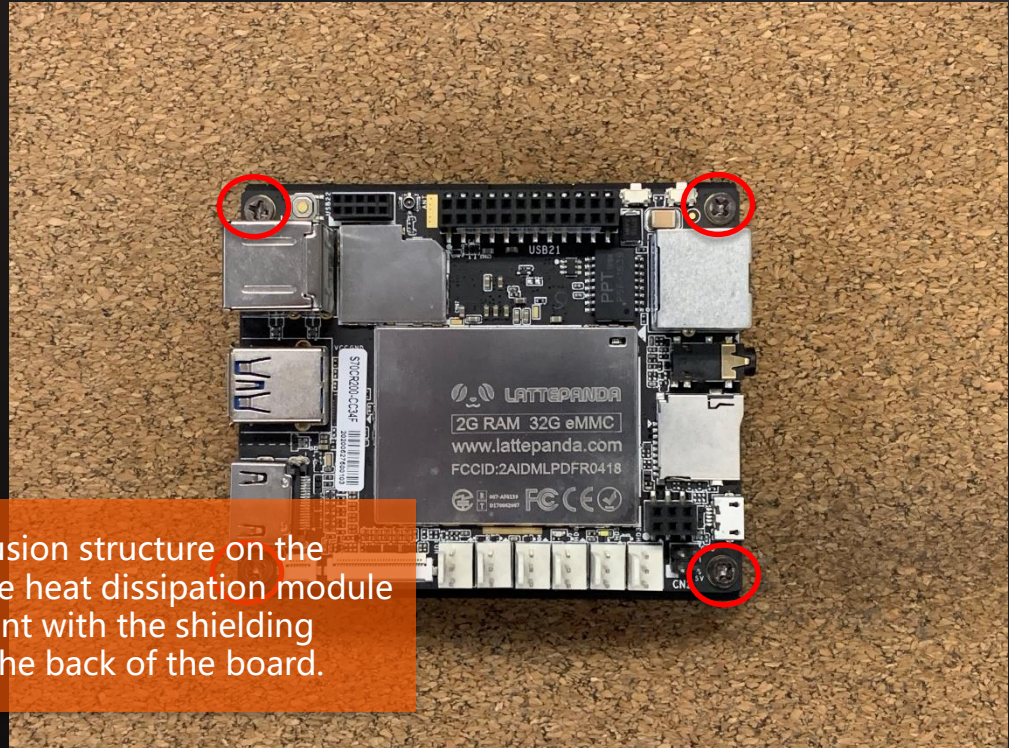
Mount the Heat-dissipation Module

The parts used:
• LattePanda board x1
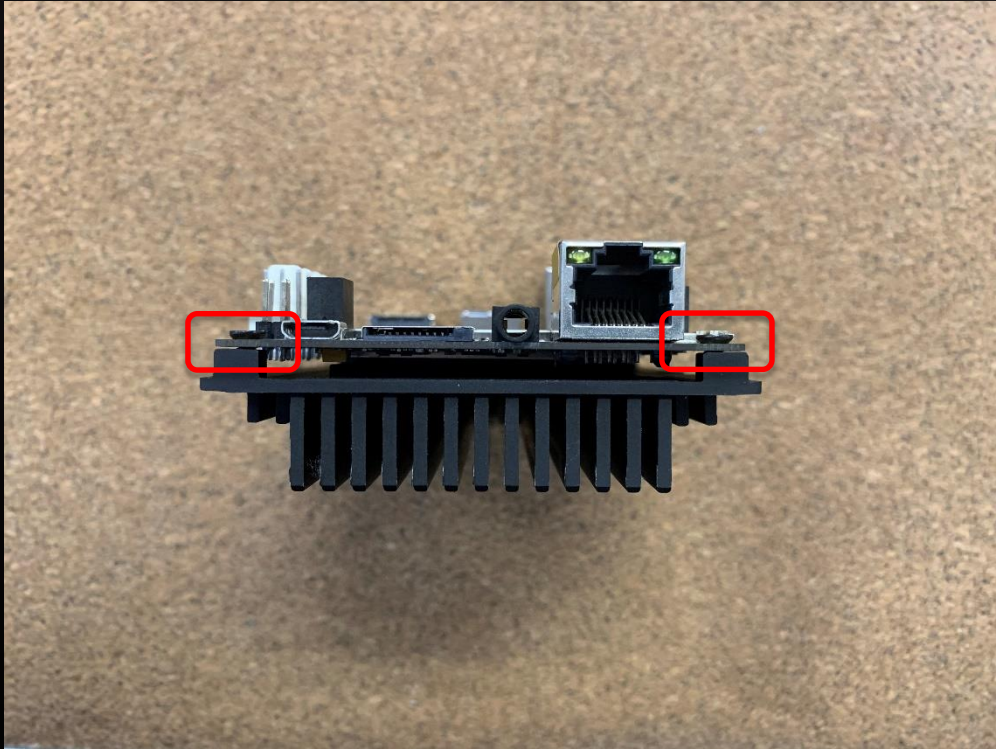• Heat-dissipation module x1
• M3 cross screw x4

Guide:
1. Mount the board on the heat-dissipation module.
2. Turn the screws on the corners.

The protrusion structure on the back of the heat dissipation module is consistent with the shielding cover on the back of the board.

02 Assembly

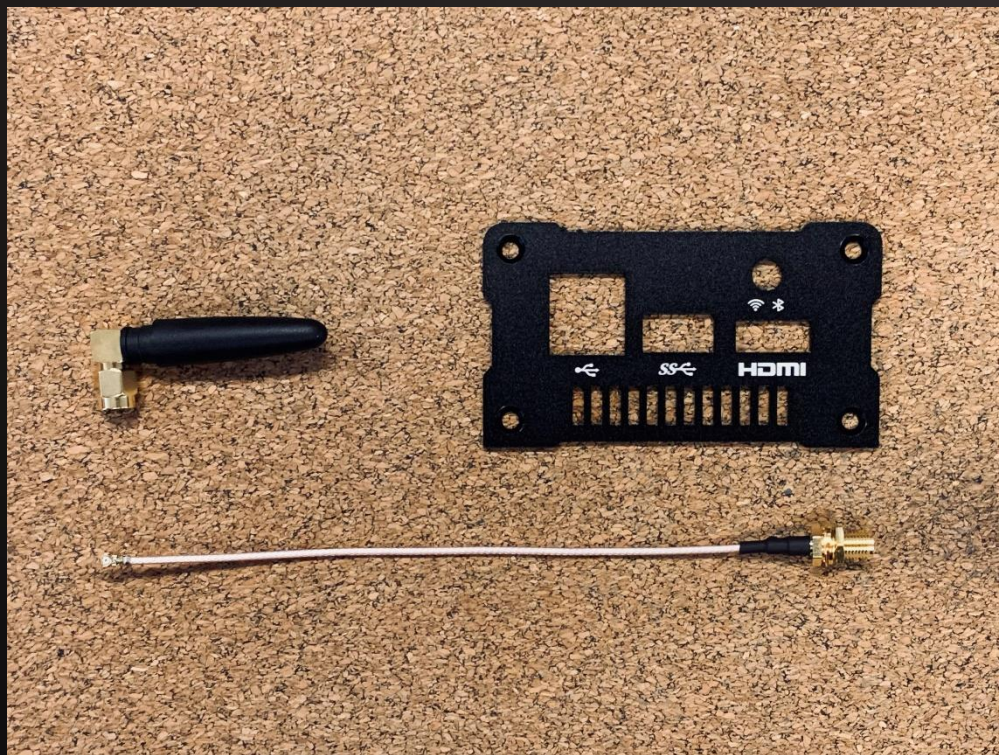## Tips: There is no need to turn the screws too tightly

Because the thermal pad needs to be fully filled with heat-dissipation module and board to play the role of heat conduction. In the material selection, we specially selected a slightly thicker specification than the gap to ensure the conduction. Therefore, turn the screws too tightly may cause the board to be bend.

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02 Assembly

Assembly of the Antenna

The parts used:
- The side panel x1
- IPEX to SMA adapter x1
- SMA Wi-Fi & BT antenna x1

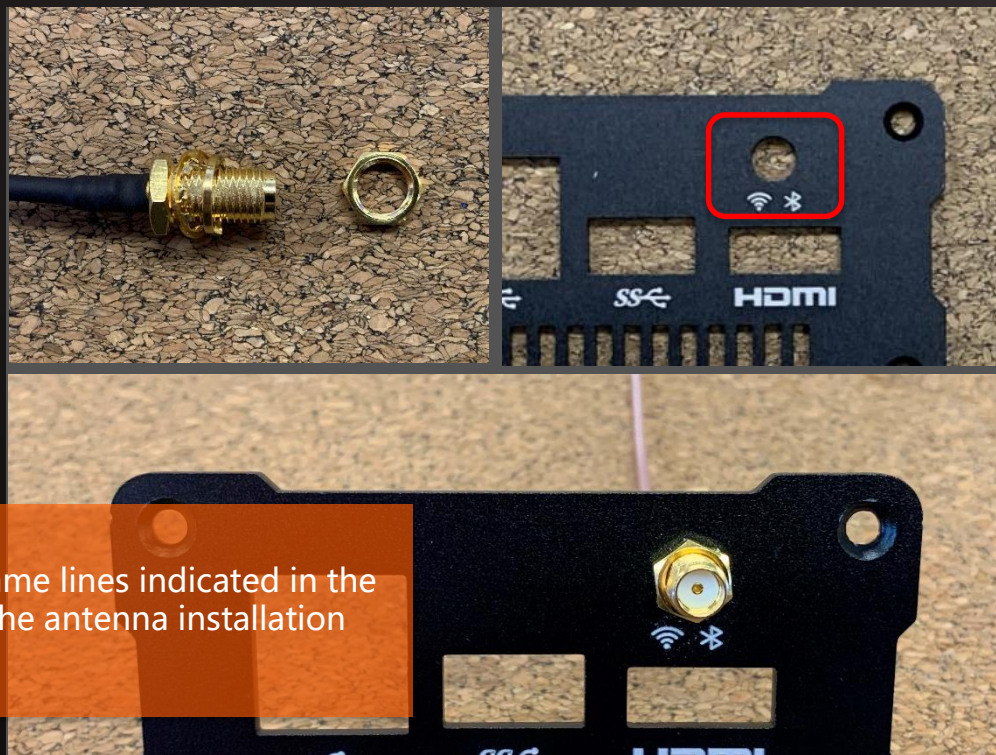Note: Please use the side panel with antenna installation hole.

Install IPEX to SMA Adapter

The parts used:
- The side panel x1
- IPEX to SMA adapter x1

Guide:
1. Unscrew the outermost nut at the adapter.
2. Plug the adapter into the antenna installation hole from the rear.
3. Lock the adapter from the front with the nut.

The red frame lines indicated in the picture is the antenna installation hole .

02 Assembly

Install Wi-Fi & BT Antenna

The parts used:
- Previously assembled component x1
- SMA Wi-Fi & BT antenna x1

Guide:
1. Screw the antenna on the component.

*Due to filming obscuration, the antenna part will be removed for now in the subsequent Assembly.

Assembly of bottom frames

The parts used:
- L Bracket with wing shaped plate x2
- Previously assembled component x1
- M3 cross screw x2

Note: Use the L Bracket as shown in the picture.

02 Assembly

Mount the L Bracket at the bottom

The parts used:
- L Bracket with wing shaped plate x2
- Previously assembled component x1
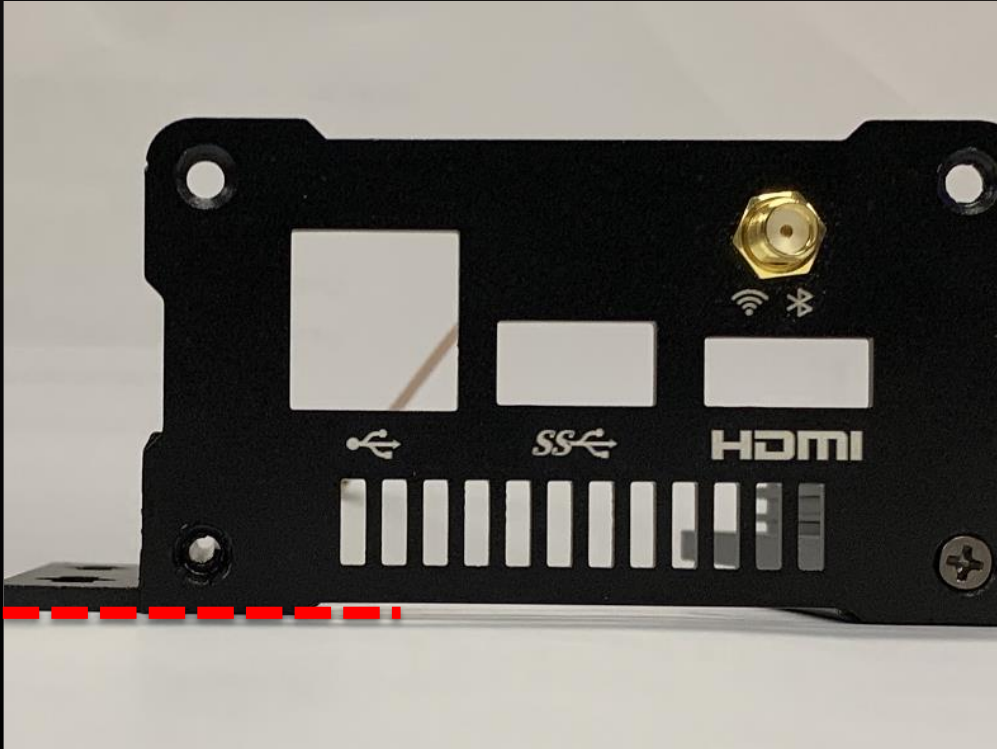- M3 cross screw x2

Guide:
1. Align the screw holes on the L Bracket and the bottom of the component.
2. Turn the screws tightly.

Note: The L Bracket must be matched properly with the panel before screwed.
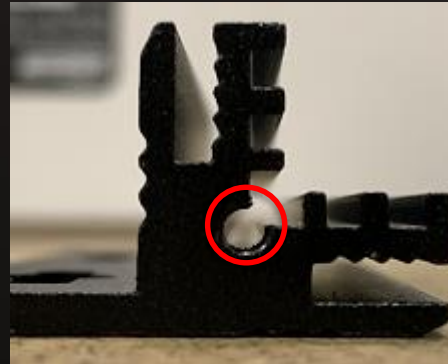
02 Assembly

Tips: How to align the panel and the L Bracket

Place the L bracket flat on the table to quickly align the fixing screw holes of the side panel and L bracket.
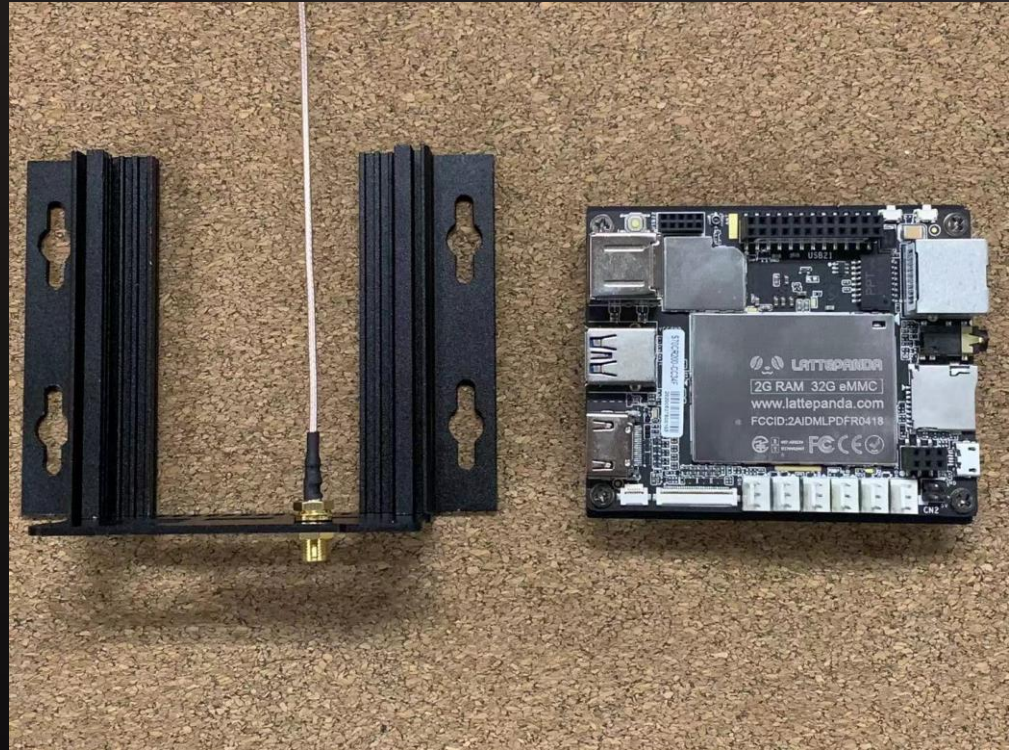
Assembly of the board

The parts used:
- LattePanda board with the heatsink x1
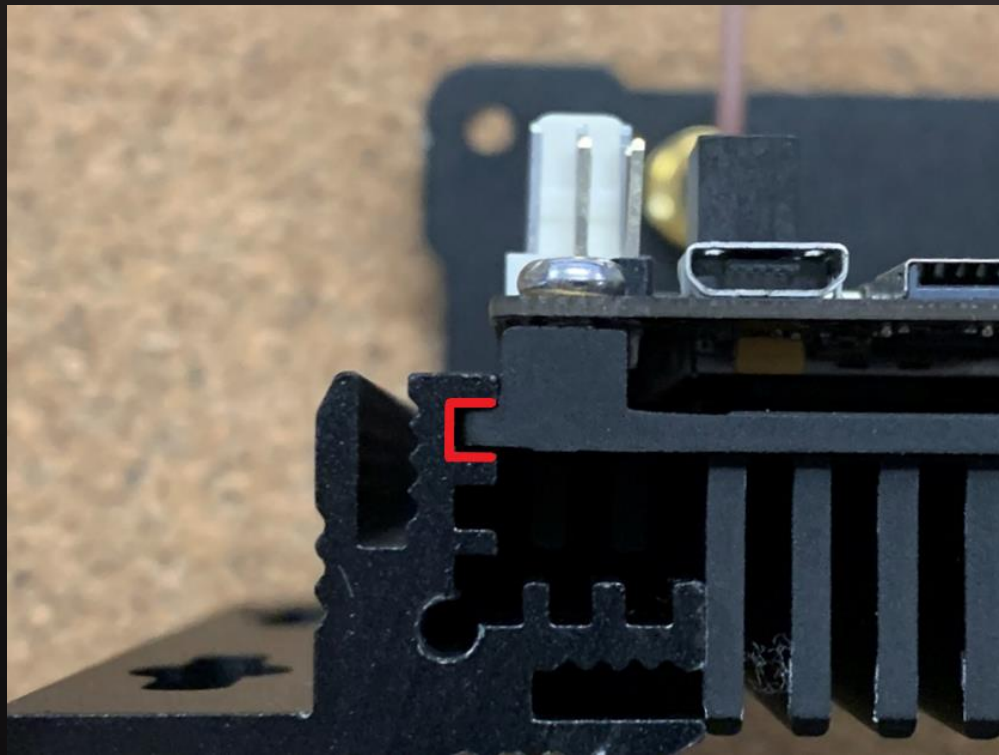- Previously assembled component x1

02 Assembly

Mount the LattePanda board

The parts used:
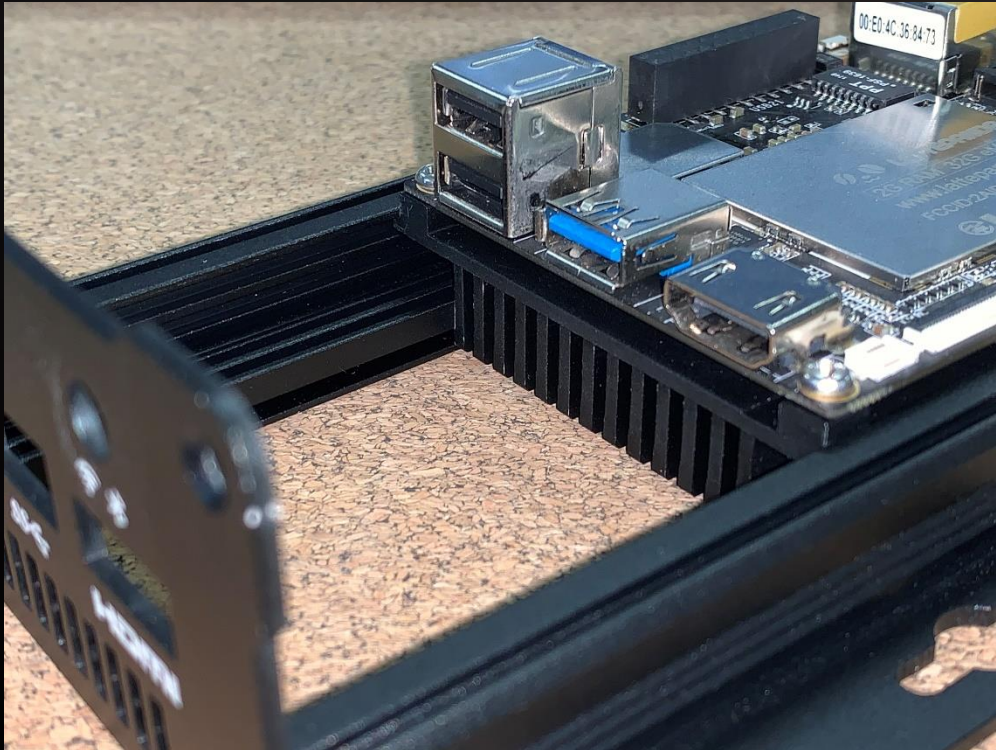- LattePanda board with the heatsink x1
- Previously assembled component x1

Guide:
1. Position the HDMI port side of the board toward the panel on the bottom frames.
2. Insert the edge protrusion of heatsink into the top groove of L bracket.
3. Slide the whole part into the bottom frames.

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02 Assembly

Tips: Notice the insertion direction of the board

Please install the board according to the hole shape and silk screen printing label.
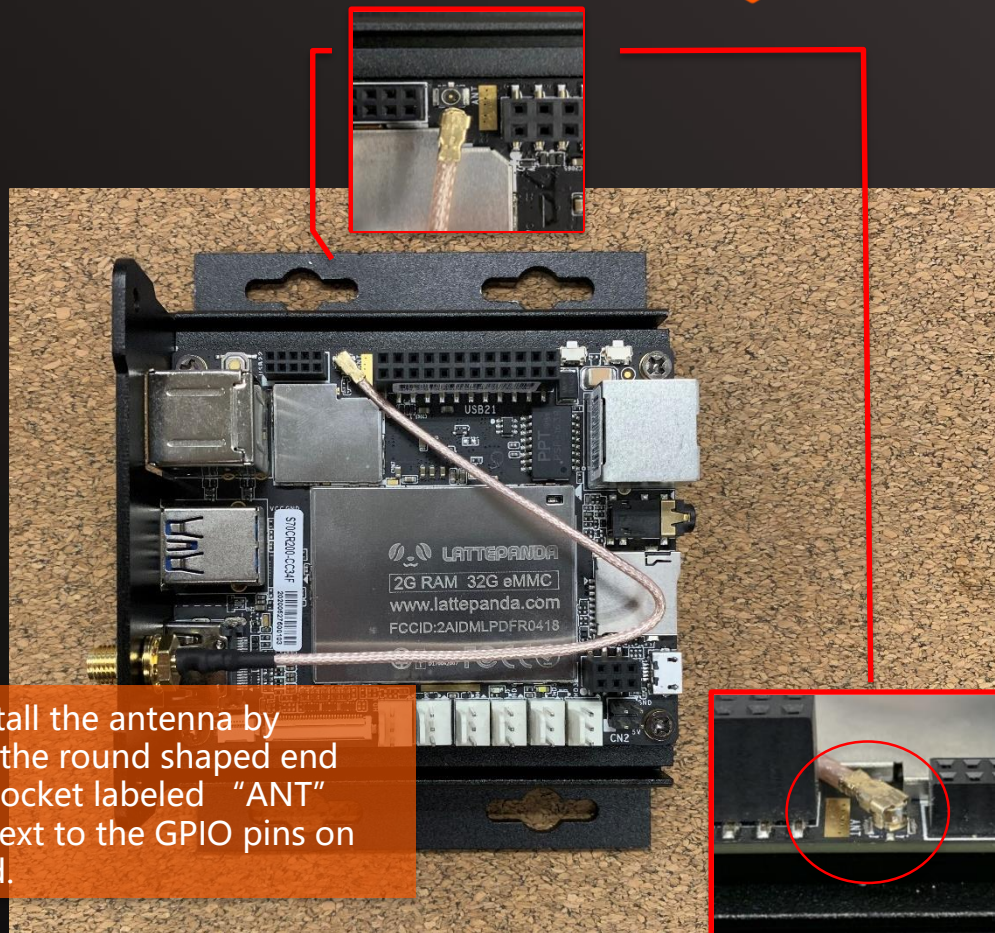
02 Assembly

Connect the Antenna

The parts used:
- Previously assembled component x1

Guide:
1. Connect the IPEX to SMA adapter to the board.
2. Arrange the antenna cable.

Note: Install the antenna by inserting the round shaped end into the socket labeled "ANT" located next to the GPIO pins on the board.
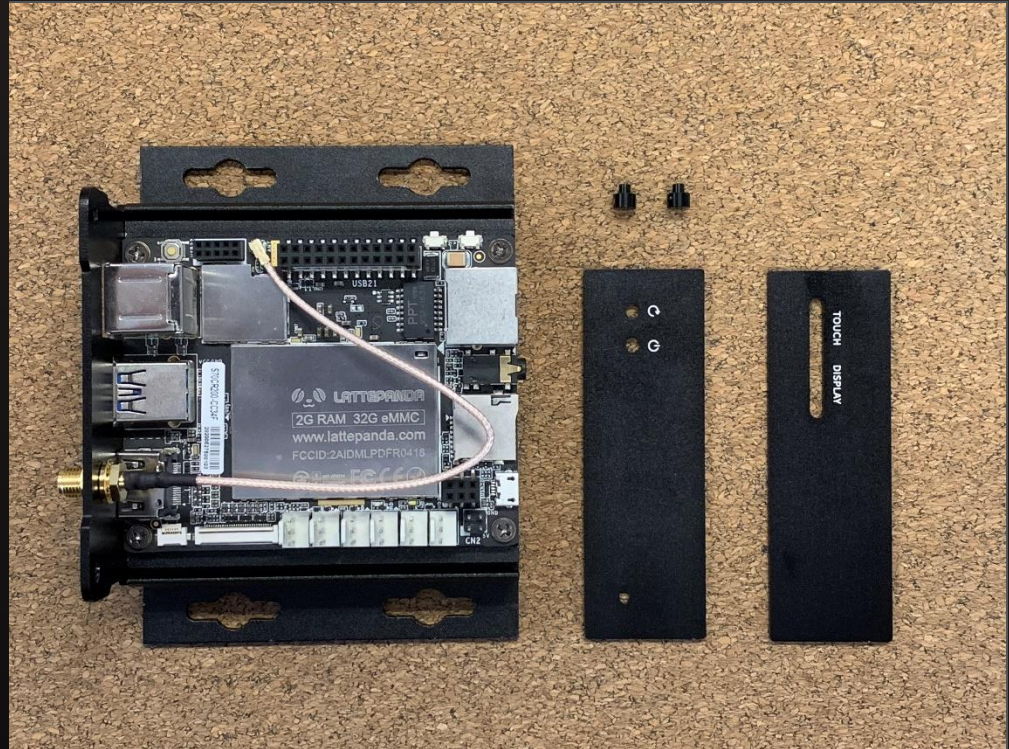
02 Assembly

Tips: Place the antenna cable

- Antenna cable can bend and finalize the shape to a certain extent.
- The antenna cable can be clamped through the gap between the female header and the shield.

02 Assembly

Assembly of the side panel

The parts used:
- Previously assembled component x1
- The side panel x2
- Switch button x2

02 Assembly

Mount one side of the panel

The parts used:
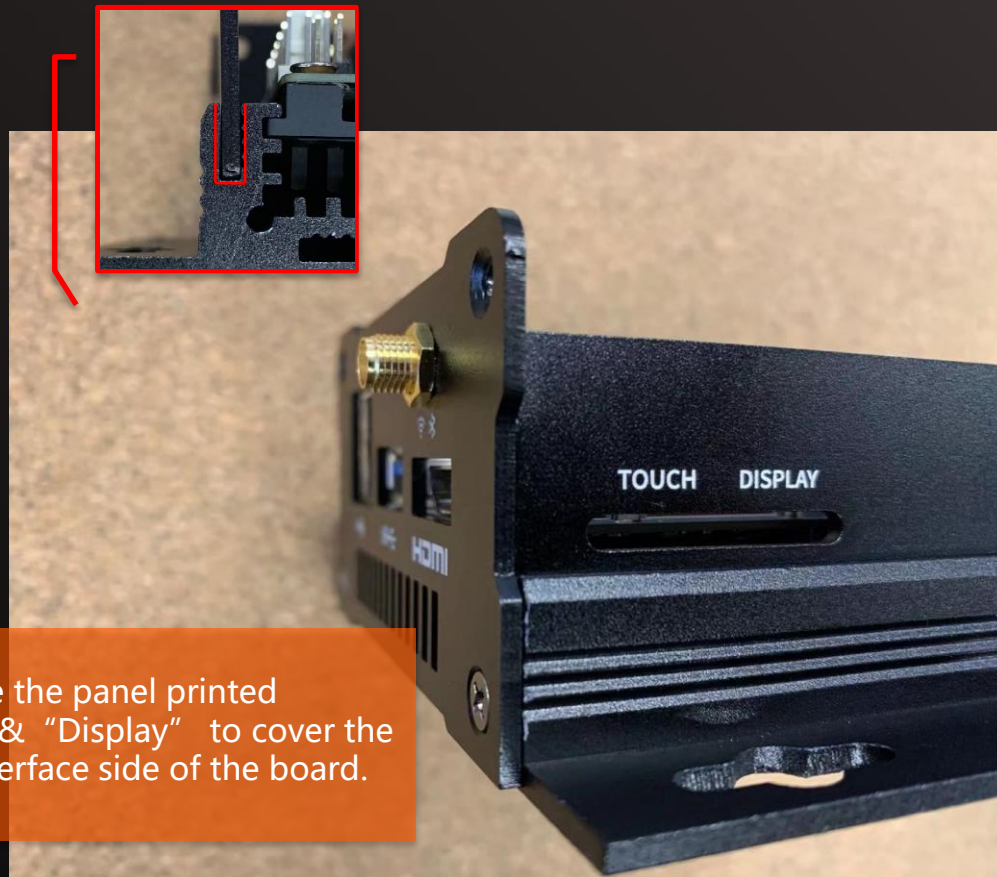- Previously assembled component x1
- The side panel x1

Guide:
1. Insert the side panel into the slot.

Note:
If you need to install the **screen and touch panel**, please insert them under this step.
Please check the supplement –
[How to Extend a Touch Display].

TOUCH   DISPLAY

Note： Use the panel printed "Touch" & "Display" to cover the display interface side of the board.

Mount the other side panel

The parts used:
- Previously assembled component x1
- The side panel x1
- Switch button x2

Guide:
1. Put the two buttons in the position from the back of the panel.
2. Insert the side panel into the slot.

Note: The switch on the board is precision, please be careful of damage caused by force when in assembly.

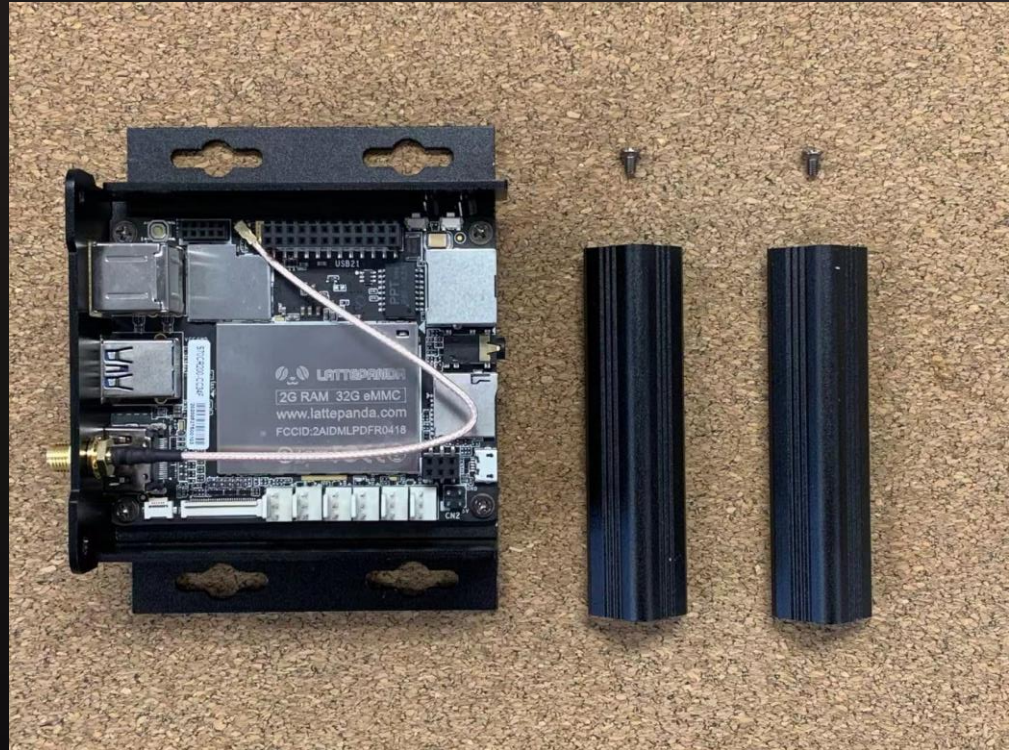Note: Use the Panel with " ⏻ " & " ⟳ " printing.

02 Assembly

Assembly of top frames

The parts used:
- Previously assembled component x1
- L Bracket x2
- M3 cross screw x2

Note: Use the L Bracket as shown in the picture.

02 Assembly

Mount the top frames

The parts used:
- Previously assembled component x1
- L Bracket x2
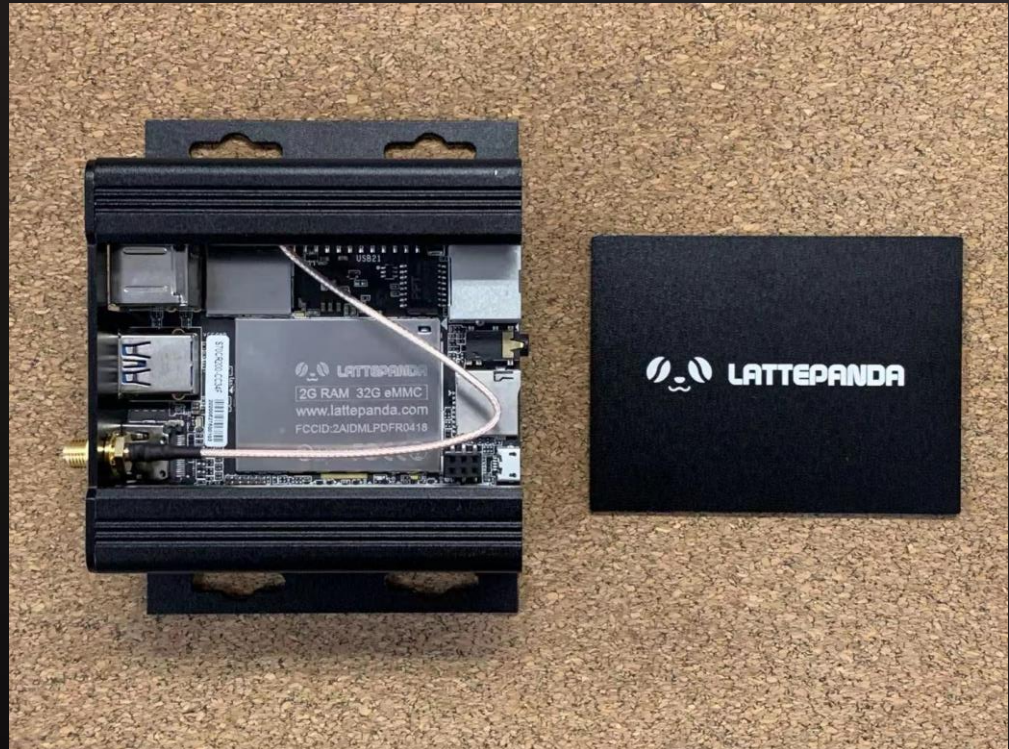- M3 cross screw x2

Guide:
1. Align the slot on the L Bracket and the side panel, then, insert.
2. Turn the screws tightly.

Assembly of the top panel

The parts used:
- Previously assembled component x1
- The top panel (with Logo) x1

02 Assembly

Mount the top panel

The parts used:
- Previously assembled component x1
- The top panel (with Logo) x1

Guide:
1. Slide the panel into the top frames.

Assembly of the side panel

The parts used:
- Previously assembled component x1
- The side panel x1
- M3 cross screw x4

02 Assembly

Install the last panel

The parts used:
- Previously assembled component x1
- The side panel x1
- M3 cross screw x4

Guide:
1. Put on the side panel.
2. Turn four screws tightly.

Done!

03 Supplement

How to confirm the boot status of the LattePanda board

- You can observe whether the small light is on through the hollow position of the side panel to determine the boot status of the board.

03 Supplement

How to Extend a Touch Display

- Pass the FPC cable through the hollow of the side panel and fix it on the board interface.
- Then, insert the side panel into the slot.

Note: Please be careful of the FPC cable, do not pinch or damage during this period.

Thank You!

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