

AXON-PI-IMX8M-MINI Quickstart Guide



1 Safety Precautions

Thank you for purchasing a TechNexion AXON series evaluation kit based on NXP i.MX8M MINI applications processor. This installation guide will be helpful in the installation, wiring and inspection of your TechNexion evaluation kit. Before using the product, please read this guide to ensure correct use. You should thoroughly understand all safety precautions before proceeding with the installation, wiring, and operation. Place this instruction sheet in a safe location for future reference.

1.1 Storage and Installation

- Keep the device dry. Precipitation, humidity, and all types of liquids or moisture can contain minerals that will corrode electronic circuits. If your device does get wet, allow it to dry completely.
- Do not use or store the device in dusty or dirty areas. Its parts and electronic components can be damaged.
- Do not store the device in hot areas. High temperatures can shorten the life of electronic devices, damage batteries, and warp or melt certain plastics.
- Do not store the device in cold areas. When the device returns to its normal temperature, moisture can form inside the device and damage electronic circuit boards.
- This product is designed for specific applications and needs to be installed by qualified personnel.
- Do not drop, knock, or shake the device. Rough handling can break internal circuit boards and fine mechanics.
- Do not paint the device. Paint can clog the parts and prevent proper operation.
- Unauthorized modifications or attachments could damage the device and may violate regulations governing radio devices.

1.2 Wiring

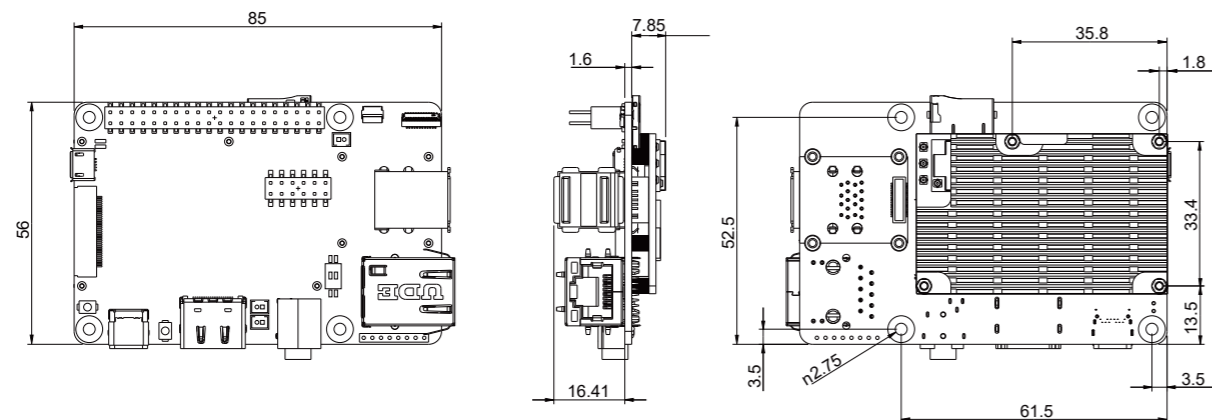
- Make sure that the available power source matches the required input power of the device. Failure to observe this caution may result in electric shock or fire.

1.3 Maintenance and Inspection

- Do not touch any internal or exposed parts of the device as electrical shock may result.
- Do not open the device while power is on. Otherwise electrical shock may result.
- Do not use harsh chemicals, cleaning solvents, or strong detergents to clean the device.
- Be sure the ventilation holes are not obstructed during operation. Otherwise malfunction may result due to bad ventilation or overheating.

These suggestions apply equally to your device, battery, charger, or any enhancement. If any device is not working properly, take it to the nearest authorized service facility for service.

2 Dimensions



Unit : mm

3 Installation Instructions

This installation guide will help you to assemble your development kit using step-by-step instructions to make sure all parts (development board, WiFi antenna, camera module and display) are working.

3.1 Connect the parts

Connect the parts in the following order. Please note that some versions of the AXON-PI-IMX8M-MINI evaluation kit do not include the camera, multi-touch display, and/or cardboard stand.

Tips: Do not power your board during the installation process.

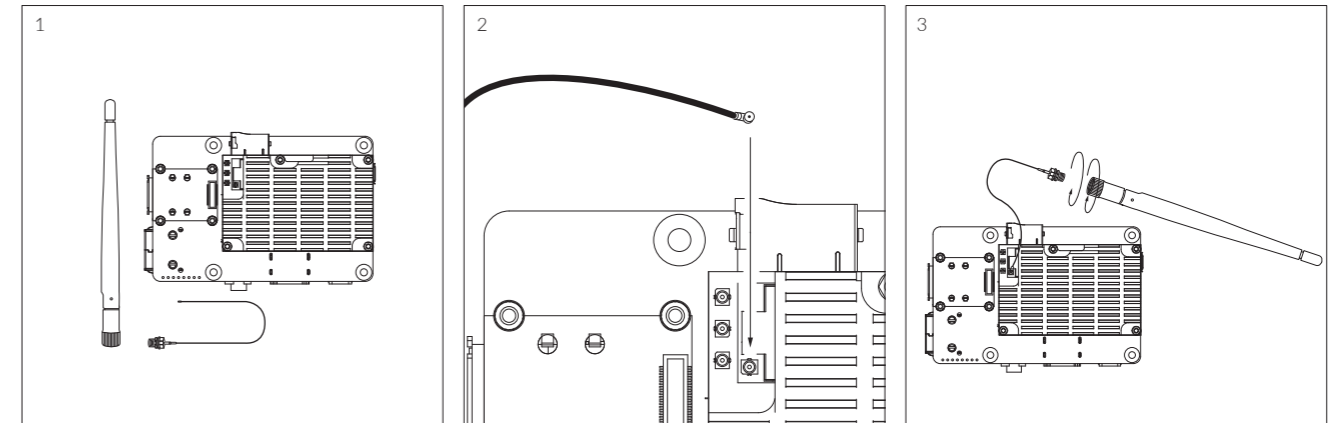
3.2 WiFi antenna

Please follow the steps below to properly install the WiFi antenna.

Step 1: Prepare WiFi antenna, extender cable and development board.

Step 2: Locate the round antenna pin on the development board. Make sure the connector is aligned with the pin. Press the small round connector at the end of the extender cable onto this pin. You will need to press down until you hear a click sound.

Step 3: Screw the extender cable into the base of the WiFi antenna.



3.3 Camera module (optional)

Please follow the steps below to properly install the camera module.

Step 1: Prepare camera module, FPC cable and evaluation board. Turn the camera module over to reveal a white connector near the edge of the module.

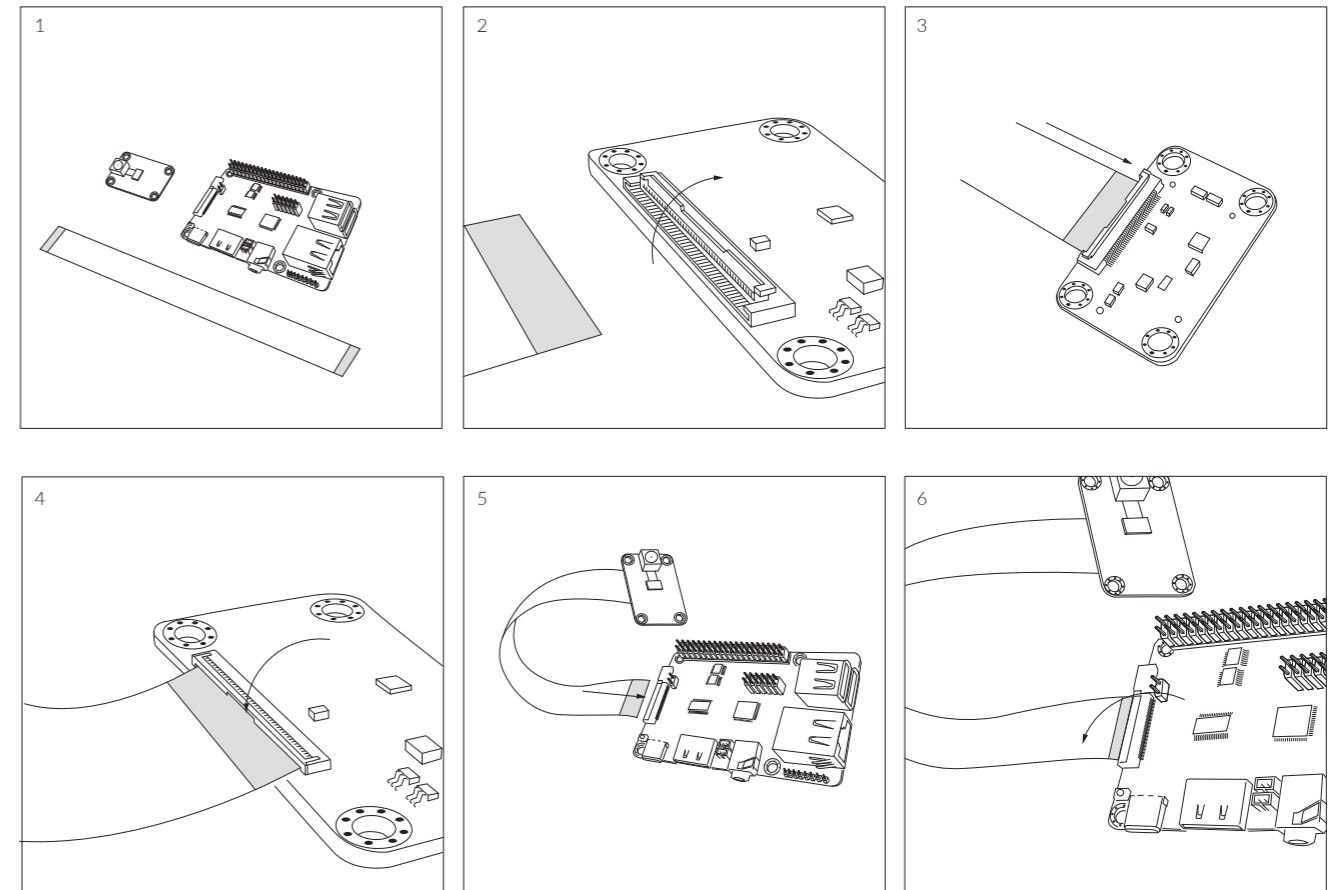
Step 2: Swivel the black retaining clip upward.

Step 3: Insert either end of the camera module cable into the white connector. Make sure that the blue side of the ribbon is facing up and is aligned straight with the connector. The silver pins on the FPC cable should be facing down.

Step 4: Swivel the retaining clip back down to hold the FPC cable in place.

Steps 5 and 6: Repeat these same steps with the other end of the cable and the connector on the board.

Tips: After installation remove the protective blue film from the camera lens.



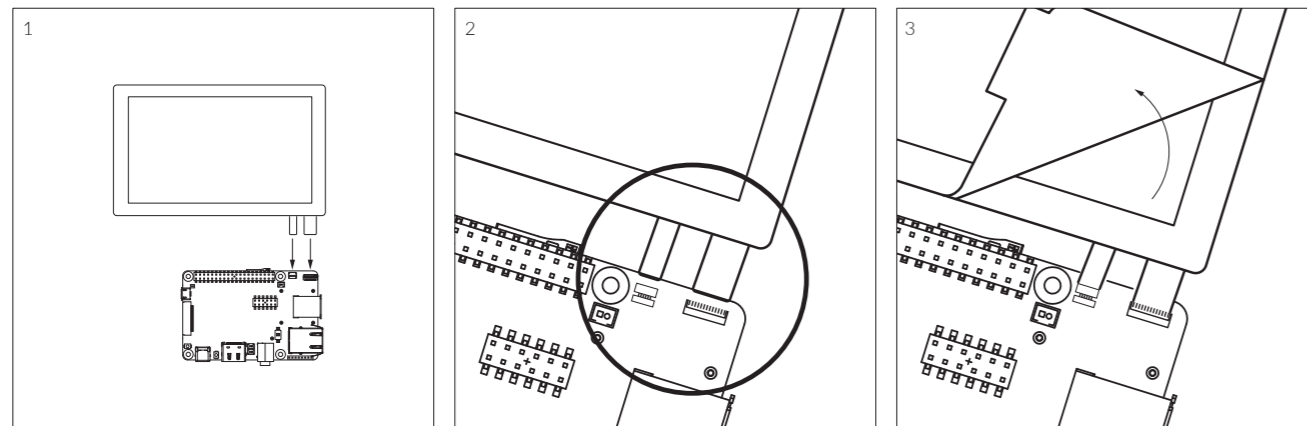
3.4 Display (optional)

Please follow the steps below to properly install the display.

Step 1: Locate the TOUCH and MIPI Display FPC connectors on the development board. Swivel the black retaining clips upward.

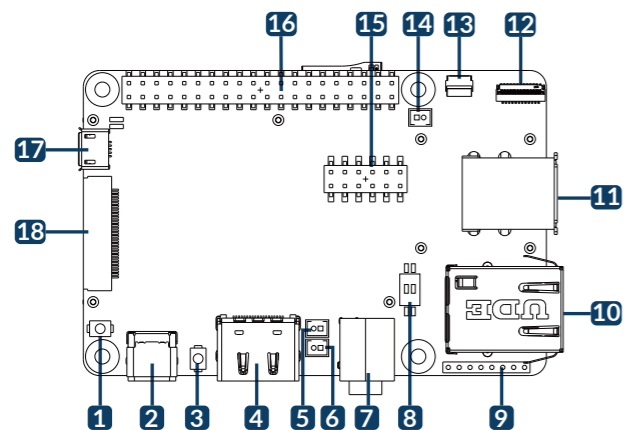
Step 2: Insert ends of the TOUCH and MIPI Display FPC cables into the connectors on the board. The silver pins on the FPC cable should be facing down. Then swivel the retaining clips back down to hold the FPC cables in place.

Step 3: Remove the protective transparent film from the display.

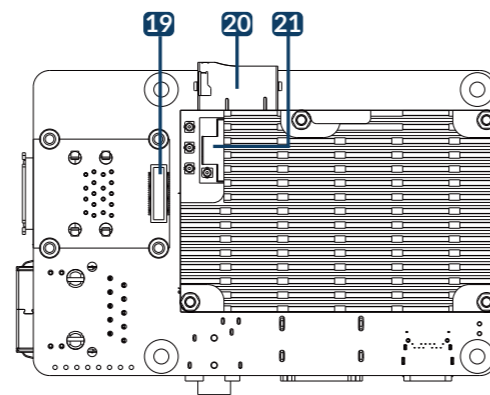


4 External Connectors

Top side view:



Rear side view:



No.	Description	No.	Description
1	RESET 1 button	12	MIPI connector
2	USB OTG (Type-C) connector	13	TOUCH 1 connector
3	User define button	14	RTC battery connector
4	HDMI connector	15	12-pin expansion header
5	SPK connector 1	16	40-pin expansion header
6	SPK connector 2	17	CONSOLE connector
7	Audio Jack	18	MIPI camera1 connector
8	Boot control switch	19	CLIX connector
9	JTAG connector	20	MicroSD connector
10	LAN RJ45 connector	21	Wi-Fi module connector
11	USB Host connector (x2)		

5 Software Installation

The unit is preloaded with software that can download and install a selection of OS images over hardwired network. Simply connect a network to the unit through the LAN RJ45 connector and power it up, then follow the steps on the screen to load the software. Local proxies will interfere with this process. For more information, go to our Knowledge Base at: <https://www.technexion.com/support/knowledge-base/>

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