TechNexion
INNOVATORS OF TECHNOLOGY

EDM1-FAIRY-IMX6
Quickstart Guide

1 Safety Precautions

Thank you for purchasing a TechNexion EDM series pre-assembled evaluation kit based on NXP i.MX6 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.
- Do not attempt to open the device.This product 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.
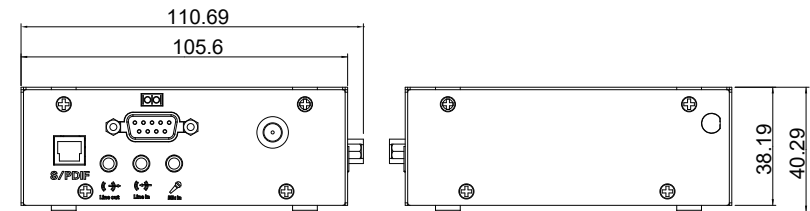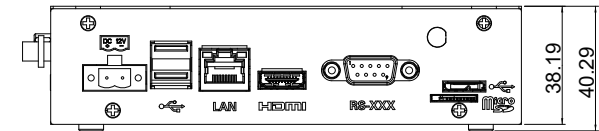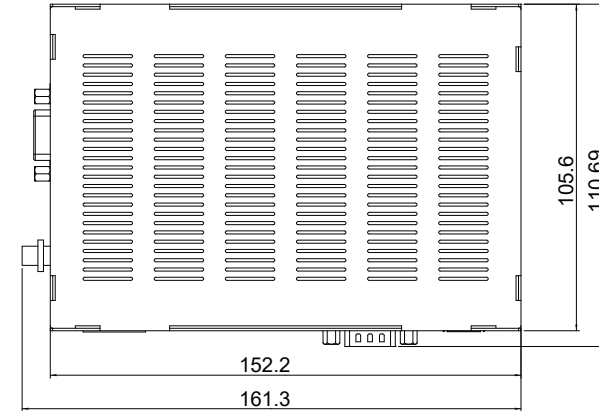
1.2 Wiring

⚡
- 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 and Wi-Fi antenna) are working.
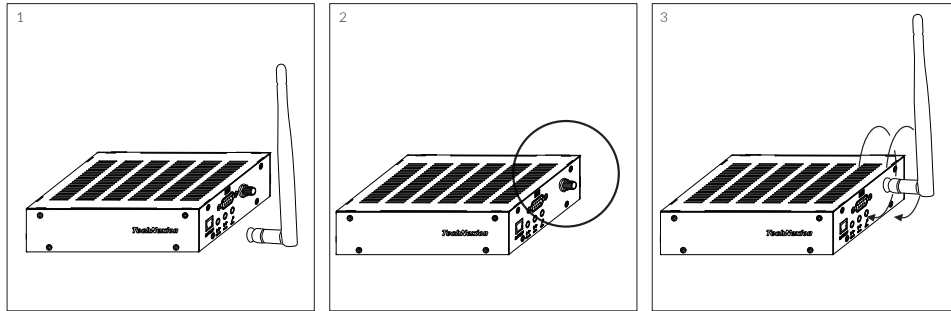Tips: Do not power your board during the installation process.

3.1 Wi-Fi antenna

Please follow the steps below to properly install the Wi-Fi antenna.
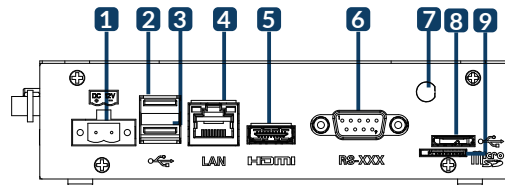Step 1: Prepare development board and Wi-Fi antenna.
Step 2: Locate the round Wi-Fi antenna connector on the development board.
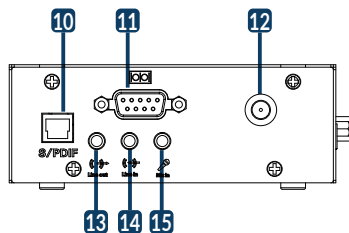Step 3: Screw the base of the Wi-Fi antenna into the antenna connector.
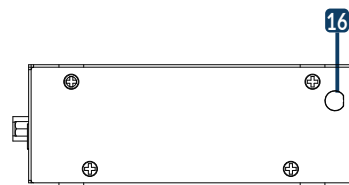

4 External Connectors

Top side view:

Left side view:

Right side view:

No.	Description	No.	Description
1	Power Input connector	9	MicroSD cardslot
2	USB Host connector	10	S/PDIF connector
3	USB Host connector	11	GPIO connector
4	LAN RJ45 connector	12	Antenna connector
5	HDMI connector	13	3.5mm jack Line out
6	RS-XXX (Serial Port) connector	14	3.5mm jack Line in
7	Antenna hole	15	3.5mm jack Mic in
8	USB OTG connector	16	Antenna hole

5 Pin Definition

5.1 Serial Port Connectors (RS-XXX/IOIO)

This product is available with two non-galvanic isolated serial ports: a full function RS-232/422/485 (RS-XXX) and a 4-wire RS-232 (IOIO). The RS-XXX port is set as RS-232 during manufacturing. The ports have the following pinout:

RS-XXX:

Port	Pin #	Signal	Description	Device
	1	SERIAL1_DCD	Port#1 Data Carrier Detect (input)	ttymxc1
	2	SERIAL1_RXD	Port#1 Receive data (input)	ttymxc1
	3	SERIAL1_TXD	Port#1 Transmit data (output)	ttymxc1
	4	SERIAL1_DTR	Port#1 Data Terminal Ready (output)	ttymxc1
	5	GND	Ground	
	6	SERIAL1_DSR	Port#1 Data Set Ready (input)	ttymxc1
	7	SERIAL1_RTS	Port#1 Request-to-send (output)	ttymxc1
	8	SERIAL1_CTS	Port#1 Clear-to-send (input)	ttymxc1
	9	SERIAL1_RI	Port#1 Ring Indicator	ttymxc1

IOIO:

Port	Pin #	Signal	Description	Device
	1	NC		
	2	SERIAL2_RXD	Port#2 Receive data (input)	ttymxc0
	3	SERIAL2_TXD	Port#2 Transmit data (output)	ttymxc0
	4	NC		
	5	GND	Ground	
	6	NC		
	7	SERIAL2_RTS	Port#2 Request-to-send (output)	ttymxc0
	8	SERIAL2_CTS	Port#2 Clear-to-send (input)	ttymxc0
	9	NC		

Header on EDM1-FAIRY-IMX6: DB9 (9-pin) standard D-Sub male connector.
Cable receptacle: DB9 (9-pin) standard D-Sub female connector.

6 Software Installation

The unit is preloaded with software that can download and install a selection of OS images over hardwired network. Simply connect a display to the unit though the HDMI connector and a network through the Ethernet 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/