Thingsmatrix TMX08-EX IoT Wireless Device User Manual

Thingsmatrix TMX08-EX IoT Wireless Device User Manual

Contents

Product Introduction

This product is used to collect all sensor data from Ice Merchandiser. It can automatically provide the location, temperature, volume and through LTE-M communication module the device will send data to the ice merchandiser operation platform.

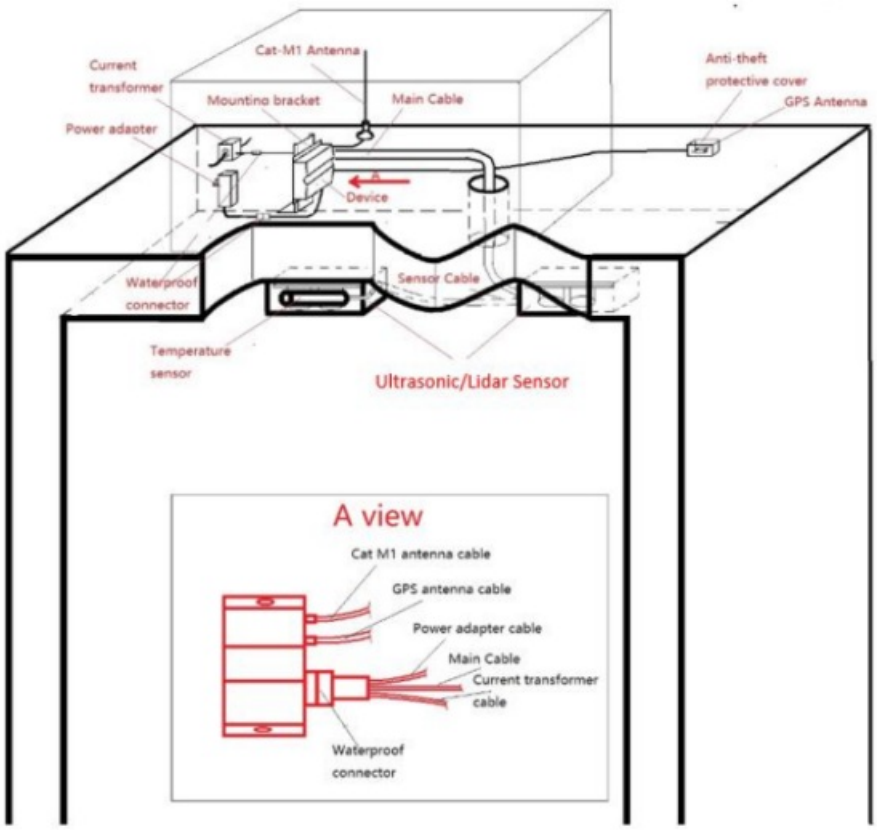
Function

- **Location:** The Ice Merchandiser operation company can check the location of the ice merchandiser to avoid

equipment missing.

- **Data Reporting**: The IoT wireless device will report the collected data such as temperature, volume, then report to the backend platform, so that the customer can monitor overall status of merchandiser.
- **Power supply alarm**: If the input power supply is break, the device will automatically start its own battery, and send alarm to backend platform to inform the situation of the power supply is gone.
- **Over-Temp. alarm**: When the temperature inside the merchandiser is over spec, alarm will be sent to the backend platform.

Device Installation Guidance



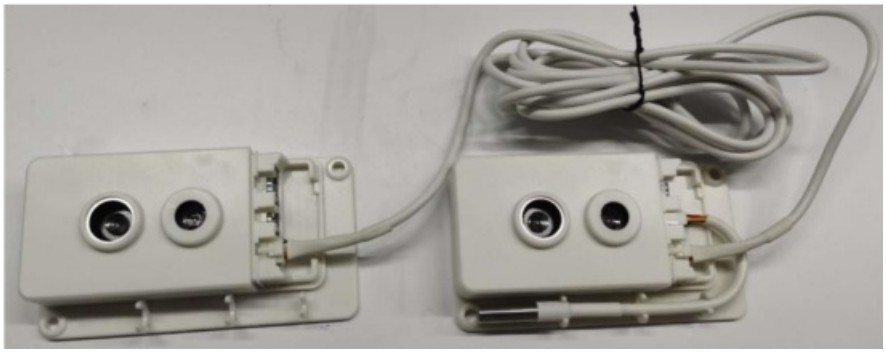
Device Installation Steps:

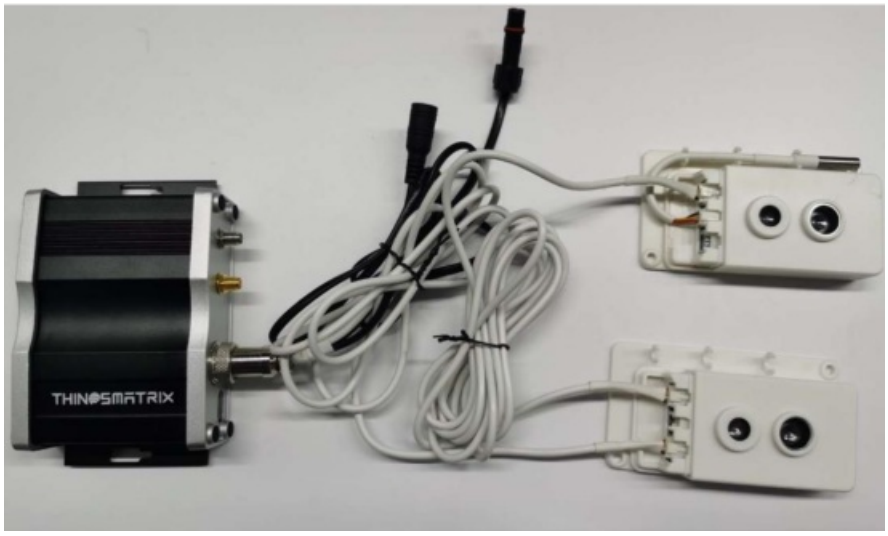
1. Connection the Main cable to the Device like below

2. Connection the Power Adaptor to the main cable

3. Connection the Current Draw Sensor to the main cable

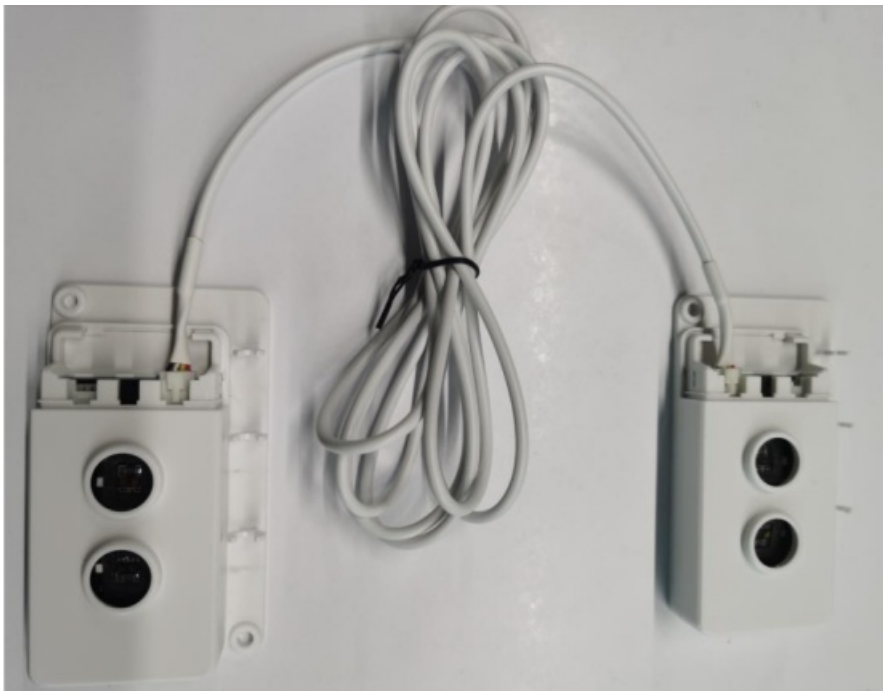
4. Connection the ultrasonic/temperature to the main cable





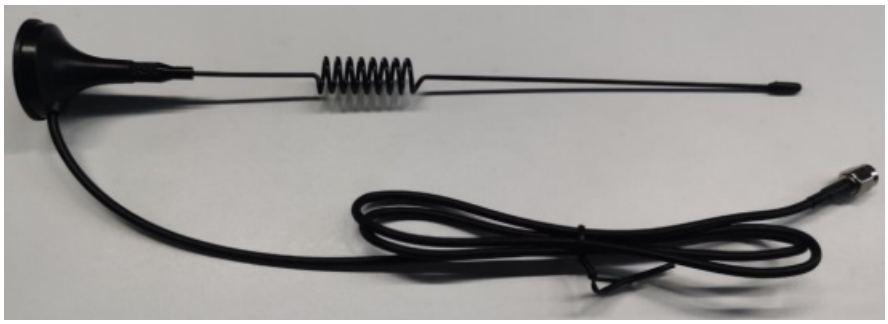
The ultrasonic/temperature cable should go through the drilled hole of the merchandiser and connect to the sensor which need to be fixed on the inner roof of the merchandiser.

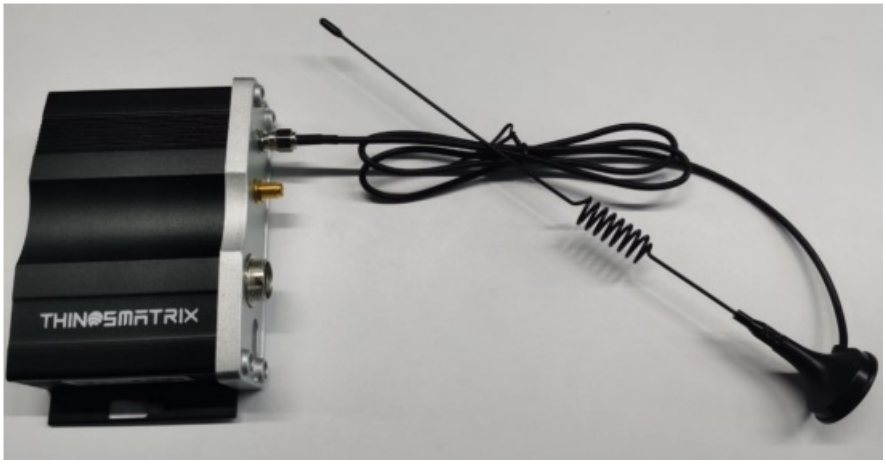
5. Connection the lidar sensor to the main cable



The lidar sensor cable should go through the drilled hole of the merchandiser and connect to the sensor which need to be fixed on the inner roof of the merchandiser.

6. Connection the GPS antenna and Cellular antenna to the device





7. Fix the bracket to the top of the merchandiser, then fasten the device with cables to the bracket.
8. Plug the power adaptor to the power socket.

Function Test

After the product is installed and connected correctly, from platform side, we can read all related data so that we can judge the overall status of the equipment is good or not.

LED Descriptions:
Green LED light:
Off: the device power off;
Slow Flash: LTE-M network Acquiring;
Fast Flash: LTE-M network Acquired, Server connecting;
Steady On: Server connected.

Blue LED light:
Off: GPS not configured;
Blue Slow Flash: GPS Malfunction;
Blue Fast Flash: GPS Acquiring;
Blue Steady On: GPS Acquired.

Performance

Item	Parameter
Size	129mm*80mm*36mm
Working Voltage	6~18VDC
Current (avg. working)	<125mA@12V
Current (Static)	<45mA@12V
Working Temp.	-20 C°~+75C°

Federal Communication Commission Interference Statement

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference, and
2. this device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

FCC Caution

- Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.
- This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

Radiation Exposure Statement:
This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

Documents / Resources

	**Thingsmatrix TMX08-EX IoT Wireless Device** [pdf] User Manual TMX08-EX, TMX08EX, 2ATV9TMX08-EX, 2ATV9TMX08EX, TMX08-EX IoT Wireless Device, Wireless Device, IoT Wireless Device