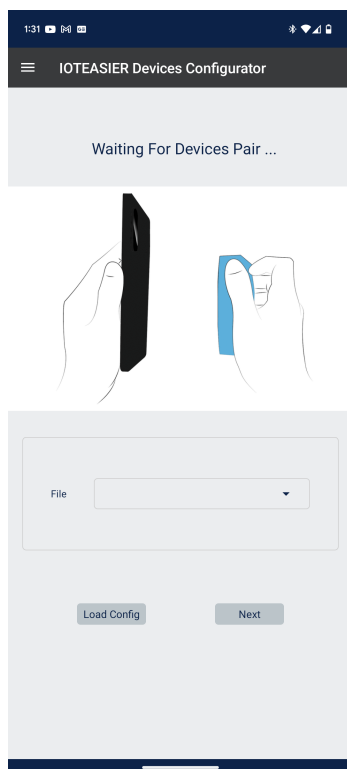




EZCONFIG App

EZCONFIG is an app that allows users to quickly import all of the configured parameters into the device without a lot of complicated procedures.

The device network settings and MQTT-related parameters are all set in the EZCONFIG App. Just use the NFC function of the Android Phone to approach the device, and the App will automatically capture the device information to generate messages in the UI list. The user only needs to select the want you want to configure on the App and all the parameters can be set very quickly and easier.



Waiting for Device Paring

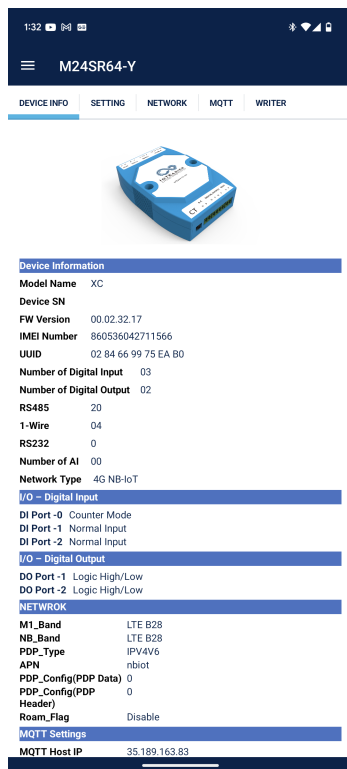
When the user launch the EZCONFIG App, it will remain in a waiting state until the device is paired through NFC. The app will continuously search for the device's NFC signal, waiting for the device to approach for pairing. After the device is paired, the APP reads the device currently set parameters and needs to wait about 5 seconds. Or you can choose to load the previously stored parameter settings.

Load existing Config

If you have a saved configuration file you can also use the load function to import parameters.



EZConfig App can save the device's parameters for future modification or import configuration into other devices, but you must pay attention to whether there will be a conflict between the network account names or topic.



Device Info

This is a detailed message of the displayed surface integration device, the IMEI, UUID numbers, the network settings (APN, Band Select), the Modbus and the software version

NFC pairing will take about 5 seconds to get the device information through the NFC. After NFC pairing correctly the App will display all the device information in the console.



Do not move your device until the device information is displayed on the screen. it may take around 5 Secs

- Device informations
 - Model Name
 - Device Serial Numbers
 - Software Version
 - Hardware Configurations
 - Present parameters

The screenshot shows the 'SETTING' page of the EZCONFIG App for device M24SR64-V. The page is divided into several sections:

- IO Configuration - Digital Input:** Contains three rows for DI Port -0, -1, and -2. Each row has a 'Digital Input Configuration' dropdown menu set to 'Normal Input'.
- I/O Configuration - Digital Output:** Contains two rows for DO Port -0 and -1. Each row has a 'Digital Output Configuration' dropdown menu set to 'Logic High/Low'.
- OneWire Configuration:** Contains a row for 'NU - OW' with a 'number of 1-wire devices' dropdown menu set to '1'.
- Report Intervals:** Contains four rows for different report types:
 - iTempRPT:** 'i temperature report interval' set to '1000' seconds.
 - 1-Wire RPT:** '1-wire report interval' set to '400' seconds.
 - CT RPT:** 'CT Report Interval' set to '0' seconds.
 - GPS RPT:** 'GPS Report Interval' set to '0' seconds.

Hardware Interface Setting

The Setting page integrates all hardware-related settings. Users only need to select the option from the drop-down menu. And this page includes Four items

- Digital In/Out Mode
- Numbers of the One-Wire Devices

Set how many one-wire devices there are, this setting will affect how much one-wire data will report to the cloud, and we can support up to 4 one-wire reports.

- **MQTT Report Rate (time period)**

user has the ability to set the frequency at which messages are returned from the device over the MQTT protocol. The shortest time that can be set is 60 seconds, meaning that the device will send a message to the user every 60 seconds. The maximum time that can be set is 3600 seconds, or one hour.



By setting a shorter frequency, the user will receive updated messages more frequently, but this will also result in higher network traffic, as more network packets will be sent and received. On the other hand, setting a longer frequency will result in less network traffic, but will also result in less up-to-date information being received from the device. It is important to consider both the amount of network traffic and the frequency of message returns when setting this value, as the choice will impact the overall performance and behavior of the device.

Modbus-Register Configuration

MDB CMD	Modbus Command Stream	Slave Address	Function Code	Register Address	Number of Register
MDB CMD1	Modbus Command Stream 1	1	0x03	0x 0001	0x 0001
MDB CMD2	Modbus Command Stream 2	1	0x03	0x 0002	0x 0001
MDB CMD3	Modbus Command Stream 3	0	0x03	0x 0000	0x 0000
MDB CMD4	Modbus Command Stream 4	0	0x03	0x 0000	0x 0000
MDB CMD5	Modbus Command Stream 5	0	0x03	0x 0000	0x 0000
MDB CMD6	Modbus Command Stream 6	0	0x03	0x 0000	0x 0000
MDB CMD7	Modbus Command Stream 7	0	0x03	0x 0000	0x 0000
MDB CMD8	Modbus Command Stream 8	0	0x03	0x 0000	0x 0000

ModBus Setting

EZConfig App support for up to 20 Modbus register access automatically polling is capable of accessing and reading data from up to 20 different Modbus registers at regular intervals. The Modbus protocol is a widely used industrial communication protocol for connecting devices and monitoring data in industrial automation systems. The polling frequency, or the interval at which the device will access and read data from the Modbus registers, can be configured using the EZConfig app. This means that the user can specify how often the device should perform the polling operation, and can adjust this frequency as needed to meet the specific requirements of their application.

In the EZConfig App is capable of using the function code 0x03, which is used for reading data from multiple holding registers in a slave device, and the function code 0x04, which is used for reading the contents of input registers in a slave device.

Slave Address

Put the client device ID address here

Function code

Choose what Modbus Function Code you want to use. At present, EZConfig App only supports Fun_Code 03 & 04.

Register Address (Start)

Client register address start

Number of register

how many register want to read back.

1:32 [Signal] [Battery] [Wi-Fi] [Cellular]

M24SR64-Y

DEVICE INFO | SETTING | NETWORK | MQTT | WRITER

BAND SELECT

☐ LTE B26
☒ LTE B28
☐ LTE B39
☐ Any frequency band

NBIOT Band

☐ LTE B1
☐ LTE B2
☐ LTE B3
☐ LTE B4
☐ LTE B5
☐ LTE B8
☐ LTE B12
☐ LTE B13
☐ LTE B18
☐ LTE B19
☐ LTE B20
☒ LTE B28
☐ Any frequency band

APN

PDP Type

PDP Configuration
PDP Data Compression:
PDP Header Compression:

Roam Flag

Network Settings (Cat-M1, NBIOT SIM)

Configuring Network settings, the user can set up and customize the Network connectivity for the device, the configuration of these settings is a critical step in the setup process, as it will determine how the device operates and communicates over the NBloT network.

Band Select

NBIOT, LTE-M band select, select which band will be using and search during operate. (Choosing more BAND will affect the time of connection search. It is recommended to confirm the corresponding BAND with the telecommunications industry first)

APN

Network APN (Access Point Name)

PDP Type

1:32 [Signal] [Battery] [Wi-Fi] [Cellular]

M24SR64-Y

DEVICE INFO | SETTING | NETWORK | MQTT | WRITER

MQTT Client

MQTT PWD

MQTT Topic

MQTT Sub

MQTT Port

MQTT Ver

MQTT Live

Interrupt

MQTTQoS

MQTTRetain

SSL Configuration

☐ SSL ☐ SNI

☐ CA Cert

☐ Clien Cert

☐ UserKey Cert

SSL Generation

SSL Version

Security Level

MQTT Connection

MQTT HSOT

MQTT Broker host address

MQTT Client

MQTT broker User Name

MQTT PWD

MQTT broker password

MQTT Topic

MQTT Published topic

MQTT Sub

MQTT Subscription topic

MQTT Port

MQTT Access Port numbers (0~65535)

MQTT Ver.

MQTT protocol version

3 : MQTT Ver.3.1

4: MQTT Ver.3.1.1

MQTT Live

Keep Alive time (S)

MQTT QoS

0 : At most Once

1 : At least Once

2 : Exactly Once

SSL Configuration

Enable SSL & SNI

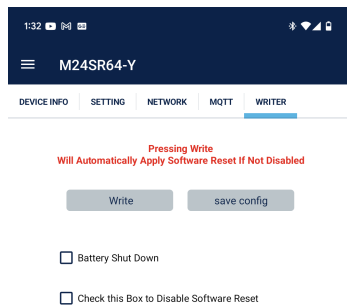
Certificate Key upload

Each certification file cannot be larger than 2KB

Write configure into Device

After you complete, the parameter setting on the page is to write all the parameters into the device and import the parameter into the application. This page is to write the parameter into the device. Before pressing writing, please confirm that the device NFC and your smartphone NFC are pair together, and do not move before the data writing is completed. When the NFC is written, the device will automatically issue a system reset event and import new parameters immediately.

☐ **Battery shutdown**



When this item is checked, the device will go into a battery-off mode (complete shutdown). Note that only the checked items are not effective, and you must press Wire to write the parameters

☐ **check this box to disable software reset**

Usually, when the data is written, it will be issued a software event to import new parameters. But after this item is checked, only the parameters will be written but without resetting the device to import the new parameters