

## SLZB-06\*and MR\* Series User Manual

### Introduction

The SLZB-06\* and MR\* series devices are versatile Radio adapters that facilitate IEEE 802.15.4 radio packet forwarding over Ethernet, WiFi, or Serial (USB) connections, serving as access points within a IEEE 802.15.4 network(s). These adapters enable integration of various devices into a unified system. Device can utilize Zigbee, Thread Wi-Fi and Bluetooth radio modes, all in 2.4Ghz range. To utilize the SLZB-06 \* series devices, an instance of software managing IEEE 802.15.4 network is required on the host server.

### Key Features

- **Multiple Operating Modes:** Supports IEEE 802.15.4 (for example, Zigbee, Thread), Wi-Fi, USB, Ethernet networks.
- **Multilingual Support:** Offers localization in different languages.
- **VPN Compatibility:** Integrates with VPN for secure remote connections.
- **Over-the-Air Updates:** Facilitates remote updates for both Radio and Core firmware, including scheduled automatic updates.
- **Enhanced Security:** Features secure login and whitelist capabilities.
- **Comprehensive Settings:** Provides extensive configuration options with an intuitive interface supporting light and dark modes.
- **User-Friendly Design:** Includes built-in helpers for all settings, suitable for both personal and business applications.

### Package Contents

- 1x SLZB-06\* and MR\* Series Radio Adapter
- 1x Antenna
- 1x MicroUSB-to-Type-C Adapter (optional)
- 2x Adhesive Tapes (for easy mounting)
- 2x Screws (for secure mounting)
- 1x Screwdriver
- 1x Screw-Helper and QR Manual (for guided installation)

### Powering the Device

The SLZB-06\* and MR\* series devices can be powered via:

- **Power over Ethernet (PoE 48V):** Utilizing an Ethernet cable.
- **Type-C USB Connection:** Using the provided Type-C port.

**Note:** The package OPTIONALLY includes a MicroUSB-to-Type-C adapter for users without a Type-C cable. Additionally, the device features optoelectronic isolation, allowing simultaneous connections to a PC via USB and to a network via Ethernet/PoE.

### LED Indicators

- **Yellow LED (Power Indicator):** Illuminates when the device is powered.
- **Blue LED (Operation Mode Indicator):** On in Radio-to-USB mode; off in Radio-to-Ethernet mode.
- **Green LED (Radio Connection Indicator):** Illuminates when radio managing software on the host server successfully connects and the radio network is established (if supported by radio software on the host server).

### Mounting the Device

The SLZB-06\* and MR\* series adapters can be mounted using either the included double-sided adhesive tape or screws:

#### Using Adhesive Tape

1. Clean the mounting surface to ensure it is free from dust and debris.
2. Peel off one side of the adhesive tape and affix it to the back of the adapter.
3. Peel off the remaining side and press the adapter firmly onto the desired surface.

#### Using Screws

1. Position the screw helper at the desired location and mark the screw holes.
2. Install screws at the marked positions.
3. Align the adapter with the installed screws and secure it by slightly moving device being located on screws already.

**Tip:** The included screwdriver and screw-helper facilitate easy installation.

### Installation

#### Host server radio software set-up

### **Connection over Ethernet**

1. **Connect the Adapter:** Insert an Ethernet cable into the SLZB-06\* and MR\* Series RJ45 port.
2. **Configure host server radio software:**

*port: tcp://[IP\_ADDRESS]:6638*

Replace [IP\_ADDRESS] with the device's IP address.

### **Connection over USB**

1. **Connect the Adapter:** Use a Type-C cable to connect the device to your host server.
2. **Install Necessary Drivers:** If the device isn't recognized, install the CP2102 drivers from Silicon Labs or other, as marked by manufacturer in the manual.
3. **Configure host server Zigbee software:**

*port: /dev/ttyUSB0*

Adjust the port as needed based on your system.

### **Network Configuration**

- **Static IP Address:** The SLZB-06\* and MR\* series supports DHCP by default but can be configured with a static IP through the device settings.
- **Wi-Fi Setup:** Navigate to the device's web interface and enter Wi-Fi credentials under the Network tab.
- **Port Forwarding:** If accessing remotely, configure port forwarding on your router.

### **Main Web Interface Sections**

- **Dashboard** – Status view (read-only).
- **Mode** – Choose USB, Ethernet, or Wi-Fi.
- **Network** – Configure IP, DHCP, etc.
- **Security** – Set login credentials and access rules.
- **VPN** – Enable/disable VPN.
- **Firmware Update** – Core and Radio SoCs firmware flashing.
- **LED Settings** – Toggle or customize indicators.

- **System Log** – Diagnostic output.
- **Feedback** – Report bugs or suggest improvements.

### Button Configuration

All SLZB models include a multifunction button. Use it to:

- **Short press** – Toggle between USB and Ethernet modes
- **Long press** – Turn LEDs off/on
- **Other functions** as per the manual or information from the manufacturer.

### Firmware Updates

- **Access the Web Interface:** Navigate to the device's IP in a browser.
- **Check for Updates:** Go to the Firmware tab and check for available updates.
- **Update Process:** Click 'Update' and wait for the device to restart.

### Troubleshooting

- **Device Not Connecting:** Ensure power and network cables are properly connected.
- **Host Server Software is Not Detecting:** Verify the correct port is set in configuration of your host server software.

**FCC Caution**

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.

Note: 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 or more 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.

The device has been evaluated to meet general RF exposure requirement. The device can be used in portable exposure condition without restriction. Any Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.