

## Mustpoint K250605

# Mustpoint NGFF(M.2) 4G/5G Module to Type C Adapter User Manual

Model: K250605

## 1. INTRODUCTION

This manual provides detailed instructions for the installation, operation, and maintenance of your Mustpoint NGFF(M.2) 4G/5G Module to Type C Adapter. This device facilitates the use of 4G/5G M.2 modules with Type-C enabled devices, offering network connectivity via an RJ45 port, Power over Ethernet (PoE) capabilities, and dual SIM card support. It is equipped with a Realtek RTL8125BG controller for reliable performance.

Please read this manual thoroughly before using the product to ensure correct setup and optimal performance.

## 2. PACKAGE CONTENTS

Verify that all items listed below are present in your package. If any items are missing or damaged, please contact customer support.

- 1x M.2 to Type C Adapter
- 2x M2 Screws
- 4x M2.5 Screws
- 1x Screwdriver
- 4x 2.4G/5G Antennas
- 1x TTL 4-Pin Cable
- 1x Grommet Kit
- 1x SIM Card Extension Kit
- 1x Type C Cable
- 1x POE RJ45 Cable

# Package Contents

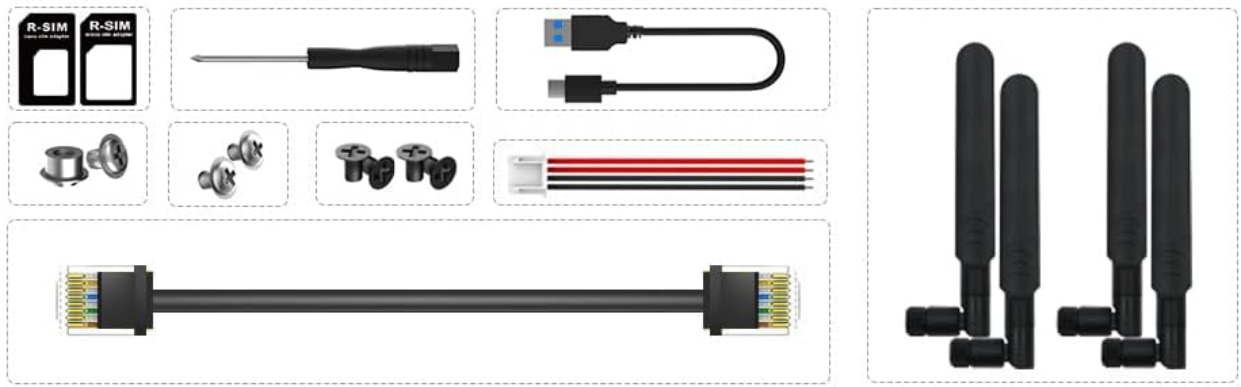


Figure 2.1: Package Contents

## 3. PRODUCT OVERVIEW

The Mustpoint NGFF(M.2) 4G/5G Module to Type C Adapter is designed for robust network connectivity. Below are diagrams illustrating the external and internal components of the device.

### 3.1 External Components



Figure 3.1: External Component Overview

- **FAN SW (Fan Switch):** Controls the cooling fan operation (ON/OFF).
- **AUX PWR (DC 5-12V):** Auxiliary power input port.
- **TYPE C:** USB Type-C port for data and power.
- **RESET:** Button to reset the device.
- **WAN LED:** Indicates Wide Area Network activity.
- **PWR LED (Power LED):** Indicates power status.
- **ETH (Ethernet Port):** RJ45 port for wired network connection.
- **PoE (Option):** Power over Ethernet capability via the RJ45 port.

### 3.2 Internal Components and SIM Slots

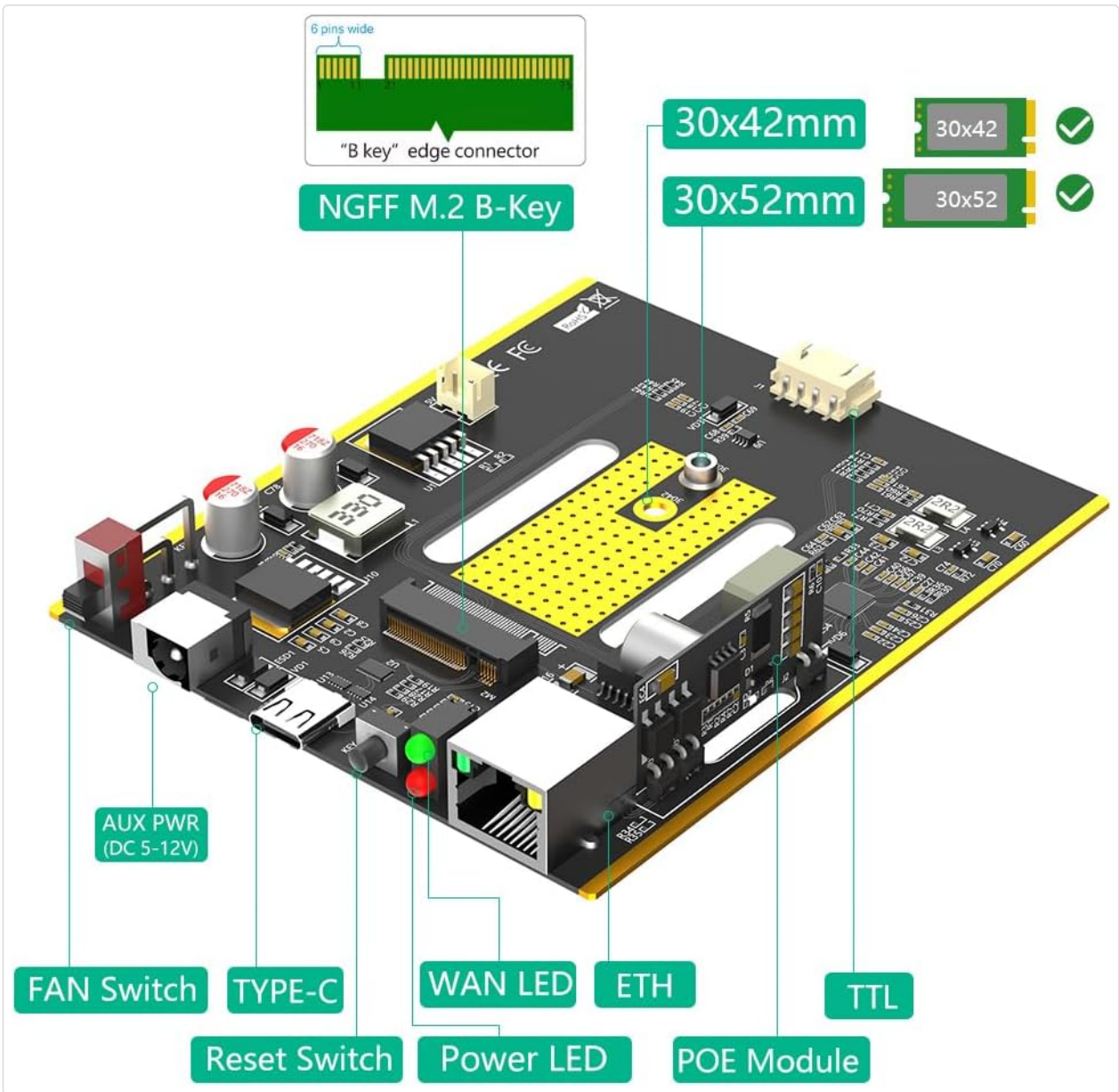


Figure 3.2: Internal PCB Layout and Key Components

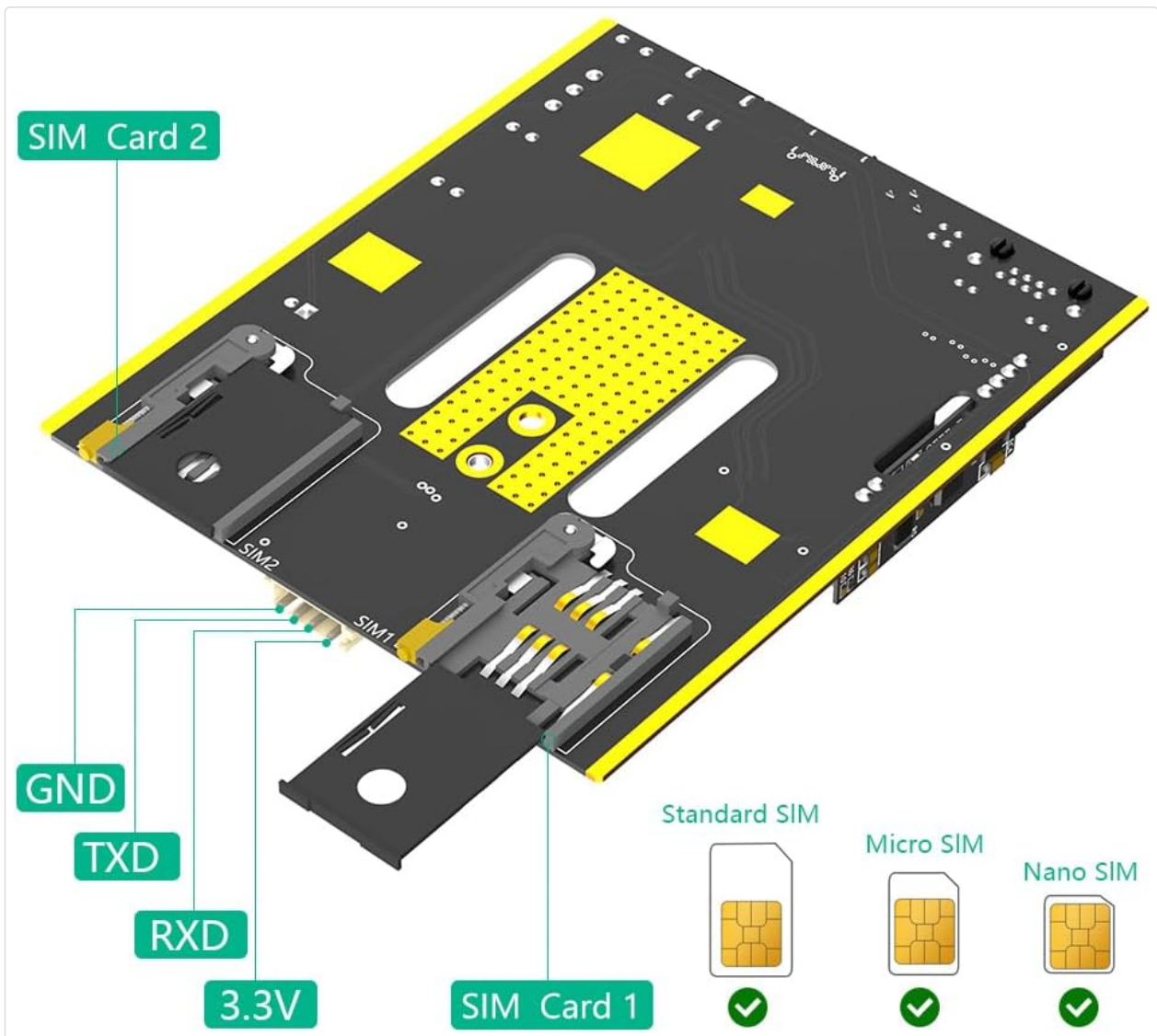


Figure 3.3: Dual SIM Card Slots and Supported SIM Types

- **M.2 B-Key Connector:** Supports 3042/3052 type 4G/5G M.2 modules.
- **SIM1 & SIM2 Slots:** Dual SIM card support for Standard, Micro, and Nano SIM cards.
- **Antenna Connectors (ANT1-ANT4):** Connectors for external 2.4G/5G antennas.
- **TTL:** Serial communication pins for advanced configuration or debugging.

## 4. SETUP INSTRUCTIONS

Follow these steps to properly set up your M.2 to Type C Adapter.

### 4.1 M.2 Module Installation

1. Carefully open the adapter casing using the provided screwdriver.
2. Locate the M.2 B-Key slot on the PCB.
3. Insert your 4G/5G M.2 module into the slot at an angle, then gently press it down.
4. Secure the M.2 module with the appropriate M2 or M2.5 screw.
5. Connect the antenna cables from the adapter to your M.2 module.

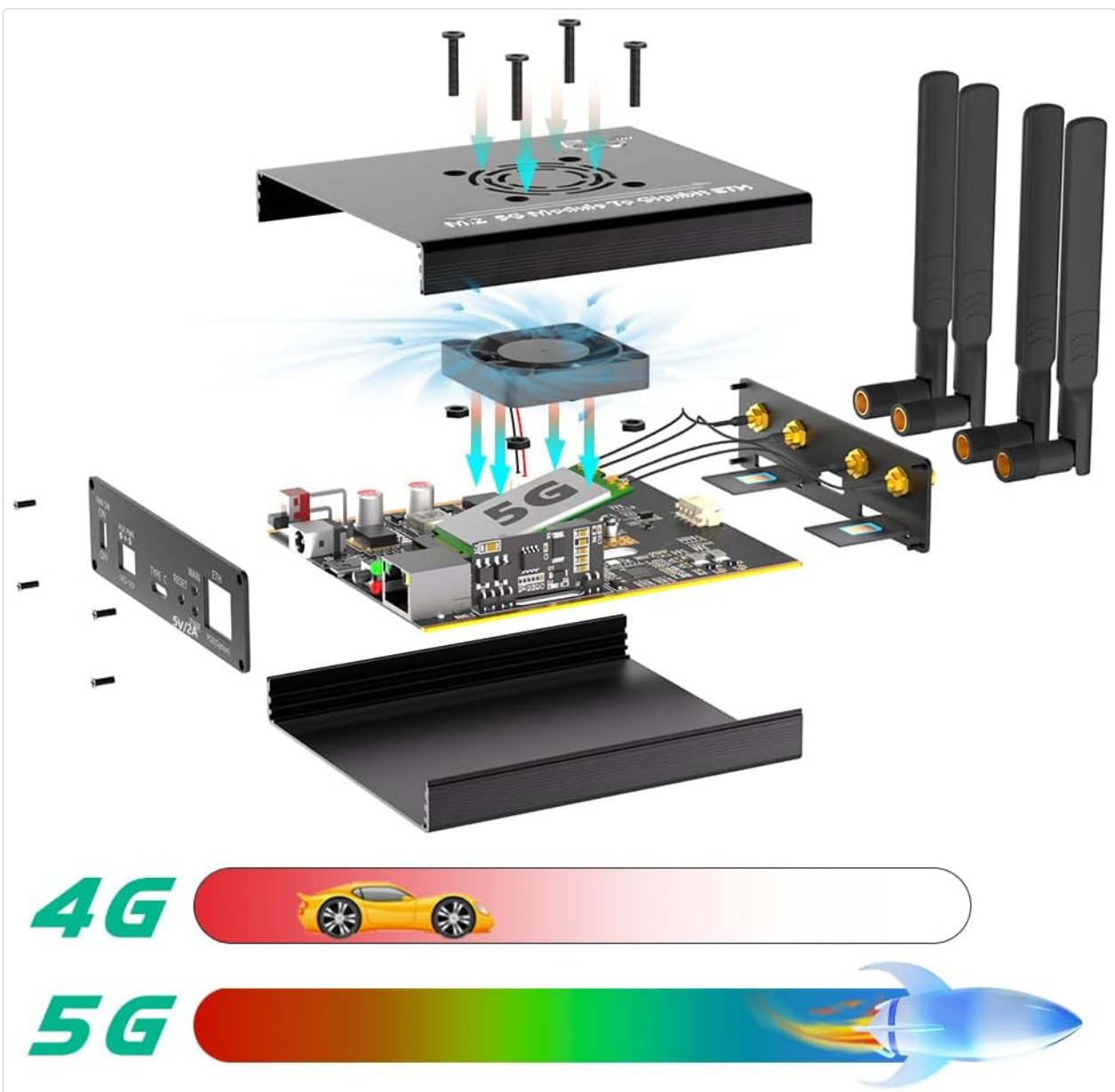


Figure 4.1: M.2 Module and Fan Assembly

## 4.2 SIM Card Installation

1. Identify the SIM1 and SIM2 slots on the PCB (refer to Figure 3.3).
2. Insert your Standard, Micro, or Nano SIM card into the desired slot until it clicks into place. Ensure the SIM card is oriented correctly.
3. If using a smaller SIM card (Micro or Nano), use the provided SIM card extension kit or adapter if necessary.

## 4.3 Antenna Connection

1. Connect the four 2.4G/5G antennas to the ANT1, ANT2, ANT3, and ANT4 connectors on the adapter.
2. Ensure the connections are secure.

## 4.4 Power and Network Connection

1. **Power:** Connect the adapter to a power source using either the provided Type-C cable or an auxiliary DC 5-12V power supply. Alternatively, if using PoE, connect the RJ45 cable to a PoE-enabled switch or injector.
2. **Network:** Connect an Ethernet cable from the adapter's ETH port to your network device (e.g., router, computer).

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## 5. OPERATING INSTRUCTIONS

### 5.1 Powering On and LED Indicators

Once connected to a power source, the PWR LED should illuminate, indicating the device is powered on. The WAN LED and ETH LED will indicate network activity and connection status respectively.

### 5.2 Fan Operation

Use the FAN SW (Fan Switch) to turn the internal cooling fan ON or OFF as needed. It is recommended to keep the fan ON during continuous operation, especially in warm environments, to ensure optimal performance and longevity of the M.2 module.

### 5.3 Dual SIM Card Functionality

The adapter supports dual SIM cards. Switching between SIM cards is typically managed via AT commands sent to the M.2 module. Refer to your specific 4G/5G M.2 module's documentation for the exact AT commands required for SIM card selection.

### 5.4 Ethernet Connectivity

The 2.5G Ethernet port automatically negotiates between various data rates: 2.5 Gbps, 1 Gbps, and 100 Mbps Base-T connectivity. Ensure your connected network device also supports these speeds for optimal performance.

### 5.5 Reset Function

Press the RESET button to restart the device. A prolonged press (typically 5-10 seconds) may initiate a factory reset, depending on the M.2 module's firmware. Consult your M.2 module's documentation for specific reset procedures.

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## 6. MAINTENANCE

- Keep the device in a cool, dry environment, away from direct sunlight and moisture.
- Ensure proper ventilation around the device, especially if the fan is off.
- Clean the exterior of the device with a soft, dry cloth. Do not use liquid cleaners or solvents.
- Regularly check antenna connections for security.

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## 7. TROUBLESHOOTING

### 7.1 No Power

- Verify that the Type-C cable or auxiliary DC power supply is securely connected and providing power.
- If using PoE, ensure your Ethernet switch or injector is PoE-enabled and functioning correctly. Some PoE implementations may require specific standards (e.g., active PoE) that the device must support.
- Check the PWR LED for illumination.

## 7.2 No Network Connectivity

- Ensure the M.2 4G/5G module is correctly installed and recognized.
- Verify that SIM cards are properly inserted and active.
- Check all antenna connections. Ensure the antennas are suitable for your M.2 module's frequency bands. Note that some modules and antennas may use RP-SMA connectors, which differ from standard SMA.
- Confirm the Ethernet cable is securely connected to both the adapter and your network device.
- Check the WAN and ETH LEDs for activity.

## 7.3 Slow Network Speed

- Ensure your M.2 module is receiving adequate signal strength.
- Verify that your connected Ethernet device supports 2.5 Gbps speeds for optimal performance.
- Check for network congestion or interference.

## 8. SPECIFICATIONS

Feature	Description
Model Number	K250605
M.2 Module Support	3042/3052 type 4G/5G Module (B-Key)
SIM Card Support	Dual SIM (Standard, Micro, Nano SIM) via AT Command
Ethernet Controller	Realtek RTL8125BG
Ethernet Speed	2.5 Gbps, 1 Gbps, 100 Mbps Base-T (Auto-negotiation)
Power Input	Type-C, AUX PWR (DC 5-12V), PoE (Optional)
Dimensions (L x W x H)	Approximately 115mm x 97.7mm x 31mm (excluding antennas)
Item Weight	Approximately 4.8 ounces (0.14 Kilograms)



Figure 8.1: Product Dimensions

## 9. WARRANTY AND SUPPORT

For technical support or warranty inquiries, please contact your retailer or the manufacturer, Mustpoint. Keep your purchase receipt as proof of purchase.