Teltonika RUT955

Teltonika RUT955 4G/LTE Router User Manual

Model: RUT955

1. INTRODUCTION

The Teltonika RUT955 is a robust industrial LTE Cat 4 router designed for high-performance and reliable connectivity in diverse environments. It integrates GNSS (Global Navigation Satellite System) capabilities, offering advanced location services. This router is equipped with a comprehensive set of interfaces including Ethernet, Digital and Analogue I/O, RS232, RS485, microSD, and USB, making it suitable for a wide range of industrial applications. Its RutOS operating system provides advanced software features for network management and security.

2. PACKAGE CONTENTS

Verify that all items listed below are present in your product packaging:

- Router RUT955
- 9 W Power Supply Unit (PSU)
- 2 x LTE antennas (magnetic mount, SMA male, 3 m cable)
- 2 x WiFi antennas (magnetic mount, RP-SMA male, 1.5 m cable)
- GNSS antenna (adhesive, SMA male, 3 m cable)
- RS485 connector block
- I/O connector block
- Ethernet cable (1.5 m)
- SIM Adapter kit
- Quick Start Guide (QSG)

Figure 2.1: Contents of the Teltonika RUT955 package, including the router, antennas, power supply, and cables.

3. PRODUCT OVERVIEW

3.1. Key Features

- Highly reliable industrial LTE Cat 4 router with GNSS location capabilities.
- Extensive interfaces: Ethernet, Digital and Analogue I/O, RS232, RS485, GNSS (GPS), microSD, and USB.
- Connectivity redundancy via Dual SIM failover.
- RutOS with advanced software features: Modbus, SNMP, TR-069, NTRIP, MQTT, and multiple VPN services.
- Compatible with AT&T, Verizon, and T-mobile networks.

3.2. Device Layout

Figure 3.1: Front and top view of the Teltonika RUT955 Router, showing the model name and status indicators.

Figure 3.2: Rear view of the Teltonika RUT955 Router, detailing the Ethernet (LAN1-3, WAN), RS232, RS485, I/O, and Power (PWR) ports.

Figure 3.3: Bottom view of the Teltonika RUT955 Router, showing the USB port, SIM card slots (SIM1, SIM2), reset button, and connectors for Mobile, GPS, and WiFi antennas.

4. SETUP INSTRUCTIONS

4.1. SIM Card Installation

1. Ensure the router is powered off.
2. Locate the two SIM card slots (Mini SIM - 2FF) on the bottom of the device.
3. Insert your activated Mini SIM cards into the slots. The router supports 1.8 V/3 V SIM cards. External SIM holders are provided.
4. Secure the SIM card covers if applicable.

4.2. Antenna Connection

1. Connect the two LTE antennas to the 'MOBILE' connectors on the bottom of the router. These are typically labeled 'MAIN' and 'AUX'.
2. Connect the two WiFi antennas to the 'WiFi' connectors.
3. Connect the GNSS antenna to the 'GPS' connector.
4. Position the antennas for optimal signal reception. Magnetic mount antennas can be placed on metallic surfaces.

4.3. Power Connection

1. Connect the provided 9 W PSU to the power input port on the rear of the router.
2. Plug the PSU into a suitable power outlet. The router will begin to power on.

4.4. Ethernet Connection

1. For initial configuration or wired network access, connect an Ethernet cable from your computer to any of the LAN ports (LAN1, LAN2, LAN3) on the router's rear panel.
2. The WAN port can be used to connect to an existing internet source (e.g., a DSL/cable modem) for wired internet access, if not using the cellular connection.

4.5. Initial Access

1. Once the router is powered on, open a web browser on a computer connected to the router via Ethernet or Wi-Fi.

2. Enter the default IP address:**192.168.1.1** into the browser's address bar.

3. When prompted, enter the default username:**admin** and password: **admin01**. It is highly recommended to change the default password immediately after the first login for security purposes.

5. OPERATING THE ROUTER

5.1. RutOS Overview

The Teltonika RUT955 operates on RutOS, a Linux-based operating system designed for Teltonika routers. RutOS provides a user-friendly web interface for configuration and monitoring. It offers extensive functionalities for network management, security, and industrial protocols.

5.2. Connectivity Management

- **Dual SIM Failover:** The RUT955 supports two SIM cards, enabling automatic failover between cellular providers to ensure continuous connectivity. This feature enhances reliability in critical applications.
- **WAN Options:** The router can utilize its 4G/LTE cellular modem, a wired Ethernet WAN connection, or even Wi-Fi as WAN (client mode) for internet access. These options can be configured for primary and backup connections.
- **Supported Carriers:** The device is designed for use with major carriers such as AT&T, Verizon, and T-mobile.

5.3. Advanced Software Features

RutOS includes a suite of advanced software features:

- **Modbus:** For industrial control systems and data acquisition.
- **SNMP:** Simple Network Management Protocol for network device monitoring.
- **TR-069:** For remote management and provisioning.
- **NTRIP:** Networked Transport of RTCM via Internet Protocol for high-precision GNSS applications.
- **MQTT:** Message Queuing Telemetry Transport for IoT communication.
- **VPN Services:** Support for various Virtual Private Network protocols to secure remote access and data transmission.

5.4. GNSS Functionality

The integrated Global Navigation Satellite System (GNSS) allows for precise location tracking and time synchronization. This feature is particularly useful for fleet management, asset tracking, and other location-aware industrial applications. Configuration and data access are available through the RutOS interface.

6. MAINTENANCE

6.1. Firmware Updates

Regular firmware updates are crucial for maintaining the security, stability, and performance of your RUT955 router. Teltonika periodically releases new firmware versions that include bug fixes, security patches, and new features. It is recommended to check for and apply updates incrementally as they become available. Firmware updates can typically be performed via the RutOS web interface.

6.2. General Care

- Keep the device in a well-ventilated area to prevent overheating.
- Avoid exposing the router to extreme temperatures, humidity, or direct sunlight.
- Clean the device with a soft, dry cloth. Do not use liquid cleaners.

- Ensure all antenna connections are secure for optimal signal strength.

7. TROUBLESHOOTING

7.1. Common Issues

- **No Internet Connection:**
  - Verify SIM card activation and proper insertion.
  - Check antenna connections and placement for optimal signal.
  - Ensure correct APN settings are configured in RutOS.
  - Confirm cellular data plan is active and not exhausted.

- **Slow Speeds:**
  - Relocate antennas for better signal strength.
  - Check for network congestion or data throttling from your carrier.
  - Ensure router firmware is up to date.

- **Difficulty Accessing Web Interface:**
  - Confirm your computer is connected to the router via Ethernet or Wi-Fi.
  - Verify the correct IP address (default 192.168.1.1) is entered.
  - Try clearing your browser's cache or using a different browser.
  - If you forgot your password, a factory reset may be necessary (refer to the Quick Start Guide for instructions).

7.2. Seeking Support

For advanced troubleshooting or specific configuration questions, Teltonika maintains an online community forum. This platform serves as a primary resource for technical assistance and knowledge sharing among users and experts. Direct phone support from Teltonika may not be available in all regions.

8. TECHNICAL SPECIFICATIONS

Feature	Specification
Mobile Module	4G (LTE): Cat 4 up to 150 Mbps; 3G: Up to 42 Mbps; 2G: Up to 236.8 kbps
Ethernet	4 x RJ45 ports, 10/100 Mbps (LAN1-3, WAN)
I/O	2 x inputs and 2 x outputs on 10 pin industrial socket; 1 x digital input and 1 x digital output on 4 pin power connector
SIM	2 x SIM slots (Mini SIM - 2FF), 1.8 V/3 V, external SIM holders, eSIM (Optional)
Power	1 x 4 pin power connector, 4 pin industrial DC power socket
USB	1 x USB A port for external devices
SD Card	Micro SD card slot
Casing Material	Aluminium housing, plastic panels
Dimensions (L x W x H)	4.33" x 1.96" x 3.93" (110 x 50 x 100 mm)

Feature	Specification
Product Weight	0.63 lbs (280 Grams)
Operating System	RutOS (Linux based)
Wireless Standard	802.11b, 802.11g, 802.11n
Frequency Band	Dual-Band

9. WARRANTY AND SUPPORT

9.1. Warranty Information

Specific warranty terms and conditions for the Teltonika RUT955 router are typically provided at the point of purchase or can be found on the official Teltonika website. Please refer to your purchase documentation or the manufacturer's website for detailed warranty coverage.

9.2. Technical Support

For technical assistance, Teltonika offers a comprehensive online knowledge base and a community forum where users can find solutions, ask questions, and share information. The Teltonika Remote Management System (RMS) is also available for centralized management and monitoring of your devices. Direct manufacturer phone support may vary by region.

Related Documents - RUT955

	Teltonika RUT955 Quick Start Guide - Installation and Configuration Comprehensive quick start guide for the Teltonika RUT955 router, covering hardware installation, device login, technical specifications, and safety information. Learn how to set up your RUT955 for reliable connectivity.
	Teltonika RUT955 LTE Router User Manual Comprehensive user manual for the Teltonika RUT955 LTE Router, covering specifications, setup, configuration, network settings, services, security, and troubleshooting.
	Teltonika RUT955 Quick Start Guide v2.2 A quick start guide for the Teltonika RUT955 router, covering hardware installation, login procedures, and technical specifications. Includes multilingual safety information and conformity declarations.

RUT951 Quick Start Guide v1.0	[Teltonika RUT951 Quick Start Guide](#) A concise guide to setting up and configuring the Teltonika RUT951 router, covering hardware installation, power socket pinout, and initial login procedures.
RUTX11 Quick Start Guide v2.2	[Teltonika RUTX11 Quick Start Guide: Installation, Setup, and Specifications](#) Comprehensive quick start guide for the Teltonika RUTX11 router. Learn about hardware installation, device setup, login procedures, technical specifications, and safety compliance. Includes detailed descriptions of ports, antennas, and connectivity options.
QSG RUT206	[Teltonika RUT206 Quick Start Guide](#) Quick Start Guide for the Teltonika RUT206 router, covering hardware overview, safety information, specifications, compliance, and initial setup instructions for reliable connectivity.