

QSG RUTM54

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This Wiki page contains the online version of the **Quick Start Guide (QSG)** for the **RUTM54 5G Router**. Here you will find an overview of the various components on the front and back of a RUTM54 device, hardware installation instructions, first login information, device specifications, and general safety information. It is highly recommended to acquaint yourself with the Quick Start Guide before using the device. You can also locate a printed version of the Quick Start Guide in the packaging box of your device.



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Safety information

Before starting operating the device, please review recommendations and precautions to minimize the possibility of accidents. Safety precautions presented are supplementary and subject to the local safety regulations. When various operations are executed on the device, the user must fully follow the safety instructions and recommendations provided with the device.

General

Radio specifications

RF technologies GNSS/3G/4G/5G/Wi-Fi

Max RF power 23 dBm@WCDMA, 28 dBm@LTE, 28 dBm@5G, 20 dBm@WiFi 2.4G, 23 dBm@WiFi 5G

Bundled accessories specifications*

Power adapter Input: 0.6A@100-240 VAC, Output: 12 VDC, 1.5A, 4-pin plug

Mobile antenna 617~960 / 1710~2690 / 3300~6000 MHz, 50 Ω, VSWR<3, gain** 4 dBi, omnidirectional, SMA male connector

GNSS antenna 1575.42~1602 MHz, 2.2~5 VDC, VSWR<1.5, active total gain** 28 dB (typ.), RHCP polarization, SMA male connector

WiFi antenna 2400~2500 /4950~5850 MHz, 50Ω, VSWR<2, gain** 3dBi, omnidirectional, RP-SMA male connector

* Order code dependant.

** Higher gain antenna can be connected to compensate for cable attenuation when a cable is used. The user is responsible for the compliance with the legal regulations.

RUTM54 router must be used in compliance with any and all applicable national and international laws and with any special restrictions regulating the utilization of the communication module in prescribed applications and environments.

FCC

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.
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 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.

FCC Caution: Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

ISED Canada

This device contains license-exempt transmitter(s)/receiver(s) that comply with Innovation, Science,

and Economic Development Canada's license-exempt RSS(s). Operation is subject to the following two conditions:

1. This device may not cause interference;
2. This device must accept any interference, including interference that may cause undesired operation of the device.

L'émetteur/récepteur exempt de licence contenu dans le présent appareil est conforme aux CNR d'Innovation, Sciences et Développement économique Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes:

1. L'appareil ne doit pas produire de brouillage;
2. L'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est.

Detailed compliance information is available at the following internet address: wiki.teltonika-networks.com/view/Certificates.

 This sign means that it is necessary to read the User's Manual before you start using the device.

 This sign on the package means that all used electronic and electric equipment should not be mixed with general household waste.

RF exposure

This device meets the official requirements for exposure to radio waves. This device is designed and manufactured not to exceed the emission limits for exposure to radio frequency (RF) energy set by authorized agencies. The device must be used with a minimum separation of 20 cm from a person's body to ensure compliance with RF exposure guidelines. Failure to observe these instructions could result in your RF exposure exceeding the applicable limits.

External antennas used with RUTM54 must be installed to provide a distance of at least 20 cm from any people and must not be co-located or operated in conjunction with any other antenna or transmitter.

Any external antenna gain must meet RF exposure and maximum radiated output power limits of the applicable rule section.

FCC Radiation Exposure Statement:

This device complies with the relevant FCC RF radiation exposure limit set forth for an uncontrolled environment. The antenna(s) used for this transmitter must not be co-located or operating in conjunction with any other antenna or transmitter and must be installed to provide a separation distance of at least 20 cm from all persons.

ISED Canada Statements:

This equipment complies with IC RSS-102 radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20 cm between the radiator and your body.

Cet équipement est conforme aux limites d'exposition aux radiations IC CNR-102 établies pour un environnement non contrôlé. Cet équipement doit être installé et utilisé avec une distance minimale de 20 cm entre le radiateur et votre corps.

1. The device for operation in the band 5150–5250 MHz is only for indoor use to reduce the potential for harmful interference to co-channel mobile satellite systems.

1. Les dispositifs fonctionnant dans la bande de 5 150 à 5 250 MHz sont réservés uniquement pour une utilisation à l'intérieur afin de réduire les risques de brouillage préjudiciable aux systèmes de satellites mobiles utilisant les mêmes canaux.

Operating conditions

- Operating temperature: -40° to +75° Celsius
- Humidity should be in the range of 10% to 90% (non-condensing). Only use the device in dry environments.
- Out of direct sunlight
- Away from heat source, corrosive substances, salts, and flammable gases

Attention: operation outside the permissible range can considerably shorten the service life of the device.

Faulty and damaged products

- Do not attempt to disassemble the device or its accessories.
- Only qualified personnel must service or repair the device or its accessories.
- If your device or its accessories have been submerged in water punctured or subjected to a severe fall, do not use until they have been checked at an authorized service center.

Electrical safety

- Only use approved accessories.
- Do not connect with incompatible products or accessories.
- It is recommended to ground devices with grounding terminals before connecting them to power. Failure to ground appropriately might result in a shock hazard. The cross-sectional area of the protective grounding conductor should be at least 1mm².

Product handling

- You alone are responsible for how you use your device and any consequences related to its use.
- Use of your device is subject to safety measures designed to protect users and their environment.

- Always treat your device and its accessories with care and keep it in a clean and dust-free place.
- Do not expose your device or its accessories to open flames or lit tobacco products, liquid, moisture, or high humidity.
- Do not drop, throw or try to bend your device or its accessories.
- Do not use harsh chemicals, cleaning solvents, or aerosols to clean the device or its accessories.
- Do not paint your device or its accessories.
- Do not attempt to disassemble your device (exceptions for devices that require disassembly for SIM insertion) or its accessories: it does not contain any user-serviceable parts. For safety reasons, the equipment should be opened only by qualified personnel.
- Make sure to use ESD personal protective equipment while the equipment is serviced.
- Do not use your device in an enclosed environment where heat dissipation is poor.
- Prolonged use in such space may cause excessive heat and raise ambient temperature, which will lead to the automatic shutdown of your device or the disconnection of the mobile network connection for your safety. To use your device again after such a shutdown, cool it in a well-ventilated place before turning it on.
- Please check all national laws and local regulations for the disposal of electronic products.
- Do not operate the device where ventilation is restricted.
- Do not use or install this product near water to avoid fire or shock hazards.
- Avoid exposing the equipment to rain or damp areas.
- Arrange power and Ethernet cables so that they are not likely to be stepped on or have items placed on them.
- Ensure that the voltage and the rated current of the power source match the device's requirements. Do not connect the device to an inappropriate power source.
- During a thunderstorm, no operations should be carried out on the device and cables.
- The unit must be powered off where blasting is in progress and explosive atmospheres are present or near medical life support equipment.
- Do not leave your device and its accessories within reach of small children or allow them to play with it. They could hurt themselves or others and could accidentally damage the device. Your device contains small parts with sharp edges that may cause an injury choking hazard.
- Like any wireless device, this device operates using radio signals, which cannot guarantee connection in all conditions. Therefore, you must never rely solely on any wireless device for emergency communications or otherwise use the device in situations where the interruption of data connectivity could lead to death, personal injury, property damage, data, or other loss.
- The device may become warm during regular use.

Front view



Back view



Connectors

POWER SOCKET PINOUT



Video Quick Start Guide

Need some help setting up your new Teltonika Networks RUTM54 Industrial 5G Router? Watch our quick start guide video and follow the step by step instructions to easily set up your new router for operation.

Hardware installation



Configure your computer LAN (Windows)

1. Ensure the 
Network
connection is
Enabled. Go to
Start — Control
Panel —
Network and
Internet —
Network and
Sharing
Center. Click
on the **Change
adapter
settings** in the
left panel, then
right-click on
Network
Adapter, and
select Enable.

2. Check if IP 
and DNS are
obtained
automatically.
Right-click on
Wireless
Network
Adapter and
select
Properties.
Then select
**Internet
Protocol
Version 4** and
click
Properties.
3. If not
selected, check
to **obtain an
IP address**
and **obtain
DNS server
address
automatically**.
Click OK.

Configure your computer Wi-Fi (Windows)

1. Ensure the 
Wireless
network
connection is
Enabled. Go to
Start — Control
Panel —
Network and
Internet —
Network and
Sharing
Center. Click
on the **Change
adapter
settings** in the
left panel, then
right-click on
Wireless
Network
Adapter, and
select Enable.

2. Check if IP 
and DNS are
obtained
automatically.
Right-click on
Wireless
Network
Adapter and
select
Properties.
Then select
**Internet
Protocol
Version 4** and
click
Properties.
3. If not
selected, check
to **obtain an
IP address**
and **obtain
DNS server
address
automatically**.
Click OK.

4. Connect to a 
wireless
network by
right-clicking
on Wireless
Network
Adapter and
selecting
Connect.

5. Choose the 
wireless
network
RUTM54 ****
from the list
and click
Connect. Enter
the Wi-Fi
password
located on the
device's label.

Login to device

1. To enter the 
router's Web
interface
(WebUI), type
<http://192.168.1.1>
into the URL field
of your Internet
browser.

2. When
prompted for
authentication
enter the
username admin
and enter the
password located
on the device
information
label/engraving.

3. After logging in, you must set a new password for security reasons. You will not be able to interact with the router's WebUI until the default password is changed. The new password must consist of a minimum of **8 characters**. Requirements: one uppercase letter, one lowercase letter, and one digit.

4. Next, the Configuration Wizard will start to help you set up some of the router's main operational parameters.

5. Finally, let's verify the Mobile signal strength. Go to the **Status — Network** page and pay attention to the **Signal Strength** indication.

To achieve the best signal conditions and maximize cellular performance, try adjusting the antennas or changing the location of your device. You can find information on signal strength recommendations [here](#).

SIM card recommendations

- Before installing the SIM cards, please apply a thin layer of dielectric grease to the SIM card contacts for devices used in environments with **high-vibration levels**. This will help avoid SIM cards losing touch with the SIM slot and prevent unexpected failures.
- Industrial Grade SIM cards are recommended for devices requiring a long lifespan used in environments with **extreme temperatures, corrosive** or **extra humid climates**, or hard-to-

reach locations.