

# QSG RUTM56

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This Wiki page contains the online version of the **Quick Start Guide (QSG)** for the **RUTM56 5G Router**. Here you will find an overview of the various components on the front and back of a RUTM56 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.



## 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

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Radio specifications	
RF technologies	2G, 3G, 4G, 5G, WiFi, GNSS
	Modem 1: 24 dBm@3G, 28 dBm@4G, 28 dBm@5G
Max RF power	Modem 2: 33 dBm@2G, 24 dBm@3G, 23 dBm@4G 20 dBm@WiFi 2.4G, 23 dBm@WiFi 5G
Bundled accessories specifications*	
Power adapter	Input: 0.6A@100-240VAC, Output: 12 VDC, 1.5A, 4-pin plug
Mobile antenna	960 / 1400 - 2690 / 3300 - 5900 MHz, 50 Ω, VSWR <3.5, gain < 3.6 dBi, omnidirectional, SMA male connector
WiFi antenna	2400 - 2500 MHz / 4950 - 5850 MHz, 50 Ω, VSWR <2, gain < 3.0 dBi, omnidirectional, RP-SMA male connector
GNSS antenna	1575.42-1602 MHz, 3-5 VDC, VSWR<2, active gain 28 dB (typ.), RHCP polarization, 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.

## Compliance

RUTM56 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.

## CE Declaration of Conformity

[BG] Bulgarian	С настоящото TELTONIKA NETWORKS декларира, че този RUTM56 е в съответствие със съществените изисквания и други разпоредби на Директиви 2014/53/EU, 2011/65/EU, 2009/125/EC.
[HR] Croatian	Ovim TELTONIKA NETWORKS izjavljuje da je ovaj RUTM56 u skladu s bitnim zahtjevima i ostalim relevantnim odredbama Direktive 2014/53/EU, 2011/65/EU, 2009/125/EC.
[CZ] Czech	Společnost TELTONIKA NETWORKS tímto prohlašuje, že tento RUTM56 splňuje základní požadavky a další ustanovení směrnic 2014/53/EU, 2011/65/EU, 2009/125/EC.
[DK] Danish	TELTONIKA NETWORKS erklaerer hermed, at denne RUTM56 er i overensstemmelse med de væsentlige krav og andre bestemmelser i direktiv 2014/53/EU, 2011/65/EU, 2009/125/EC.
[NL] Dutch	Hereby, TELTONIKA NETWORKS declares that this RUTM56 is in compliance with the essential requirements and other relevant provisions of Richtlijnen 2014/53/EU, 2011/65/EU, 2009/125/EC.
[EE] Estonian	Käesolevaga kinnitab TELTONIKA NETWORKS seadme RUTM56 vastavust Direktiivide 2014/53/EU, 2011/65/EU, 2009/125/EC põhinöuetele ja nimetatud direktiivist tulenevatele teistele asjakohastele sätetele.
[FI] Finish	TELTONIKA NETWORKS vakuuttaa täten että RUTM56 tyypinen laite on Direktiivien 2014/53/EU, 2011/65/EU, 2009/125/EC oleellisten vaatimusten ja sitä koskevien direktiivin muiden ehtojen mukainen.
[FR] French	TELTONIKA NETWORKS déclare par la présente que ce RUTM56 est conforme aux exigences essentielles et autres dispositions des Directives 2014/53/EU, 2011/65/EU, 2009/125/EC.
[DE] German	TELTONIKA NETWORKS erklärt hiermit, dass dieses RUTM56 den grundlegenden Anforderungen und anderen Bestimmungen der Richtlinien 2014/53/EU, 2011/65/EU, 2009/125/EC entspricht.
[GR] Greek	H TELTONIKA NETWORKS δηλώνει ότι το παρόν RUTM56 συμμορφώνεται με τις βασικές απαιτήσεις και άλλες διατάξεις των Οδηγιών 2014/53/EU, 2011/65/EU, 2009/125/EC.
[HU] Hungarian	A TELTONIKA NETWORKS kijelenti, hogy ez a RUTM56 megfelel a 2014/53/EU, 2011/65/EU, 2009/125/EC irányelvek alapvető követelményeinek és egyéb rendelkezéseinek.
[IE] Irish	Leis seo, dearbháonn TELTONIKA NETWORKS go gcomhlíonann an RUTM56 seo bunriachtanais agus forálacha ábhartha eile Threoir 2014/53/EU, 2011/65/EU, 2009/125/EC.
[IT] Italian	Con la presente, TELTONIKA NETWORKS dichiara che questo RUTM56 è conforme ai requisiti essenziali e ad altre disposizioni pertinenti della Direttive 2014/53/EU, 2011/65/EU, 2009/125/EC.
[LV] Latvian	TELTONIKA NETWORKS ar šo paziņo, ka šis RUTM56 atbilst pamatprasībām un citiem Direktīvas 2014/53/EU, 2011/65/EU, 2009/125/EC noteikumiem.
[LT] Lithuanian	Šiuo dokumentu UAB TELTONIKA NETWORKS deklaruoja, kad šis RUTM56 atitinka esminius reikalavimus ir kitas 2014/53/EU, 2011/65/EU, 2009/125/EC Direktyvų nuostatas.
[MT] Maltese	TELTONIKA NETWORKS b'dan tiddikkjara li dan RUTM56 jikkonforma mar-rekwiżiti essenziali u dispožizzjonijiet oħra tad-Direttivi 2014/53/EU, 2011/65/EU, 2009/125/EC.
[NO] Norwegian	TELTONIKA NETWORKS erklaerer herved at denne RUTM56 er i samsvar med de grunnleggende kravene og andre bestemmelser i Direktivene 2014/53/EU, 2011/65/EU, 2009/125/EC.
[PL] Polish	TELTONIKA NETWORKS niniejszym oświadcza, że niniejszy RUTM56 jest zgodny z zasadniczymi wymaganiami i innymi postanowieniami Dyrektyw 2014/53/EU, 2011/65/EU, 2009/125/EC.
[PT] Portuguese	A TELTONIKA NETWORKS declara que esta RUTM56 cumpre os requisitos essenciais e outras disposições das Directivas 2014/53/EU, 2011/65/EU, 2009/125/EC.
[RO] Romanian	TELTONIKA NETWORKS declară prin prezenta că acest RUTM56 este în conformitate cu cerințele esențiale și cu alte dispoziții ale Directivelor 2014/53/EU, 2011/65/EU, 2009/125/EC.
[SK] Slovak	Spoločnosť TELTONIKA NETWORKS týmto vyhlasuje, že tento RUTM56 splňa základné požiadavky a ďalšie ustanovenia smerníc 2014/53/EU, 2011/65/EU, 2009/125/EC.
[SI] Slovenian	TELTONIKA NETWORKS izjavlja, da je ta RUTM56 skladen z bistvenimi zahtevami in drugimi določbami Direktiv 2014/53/EU, 2011/65/EU, 2009/125/EC.
[ES] Spanish	TELTONIKA NETWORKS declara por la presente que este RUTM56 cumple los requisitos esenciales y otras disposiciones de las Directivas 2014/53/EU, 2011/65/EU, 2009/125/EC.
[SE] Swedish	TELTONIKA NETWORKS förklarar härmed att denna RUTM56 uppfyller de grundläggande kraven och andra bestämmelser i Direktiven 2014/53/EU och 2011/65/EU, 2009/125/EC.

## Markings

Detailed compliance information is available at the following internet address: [wiki.teltonika-networks.com/view/Certificates](https://wiki.teltonika-networks.com/view/Certificates) (<https://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.
-  Hereby, TELTONIKA NETWORKS declares that this RUTM56 is in compliance with the essential requirements and other relevant provisions of Directives 2014/53/EU, 2011/65/EU, 2009/125/EC. The full text of the EU Declaration of Conformity is available at the following internet address: <https://wiki.teltonika-networks.com/view/RUTM56>.
-  Hereby, TELTONIKA NETWORKS declares that this RUTM56 is in compliance with Radio Equipment Regulations 2017, The Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Regulations 2012, The Ecodesign for Energy-Related Products and Energy Information (Amendment) (EU Exit) Regulations 2019. The full text of the UK Declaration of Conformity is available at the following internet address: <https://wiki.teltonika-networks.com/view/RUTM56>.

## RF exposure

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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 RUTM56 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.

Maximum transmission power	
GSM	33 dBm
WCDMA	24 dBm
LTE	23 dBm
Wi-Fi 2.4G	20 dBm
Wi-Fi 5G	23 dBm



In all EU member states, operation of 5150-5350 MHz is restricted to indoor use only.

## Product Safety and Use

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### 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

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- 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

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- 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 1mm<sup>2</sup>.

## Product handling

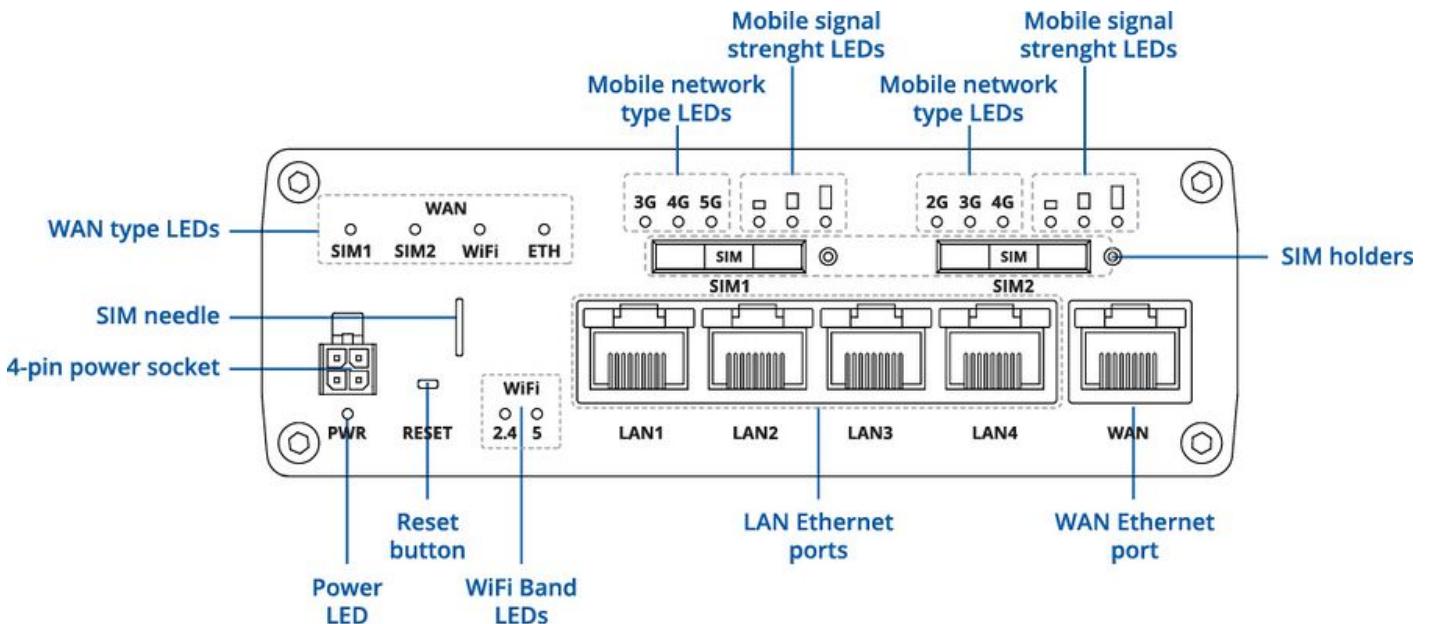
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- You alone are responsible for how you use your device and any consequences related to its use.
- Use of your device is subject to safety measures designed to protect users and their environment.
- Always treat your device and its accessories with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

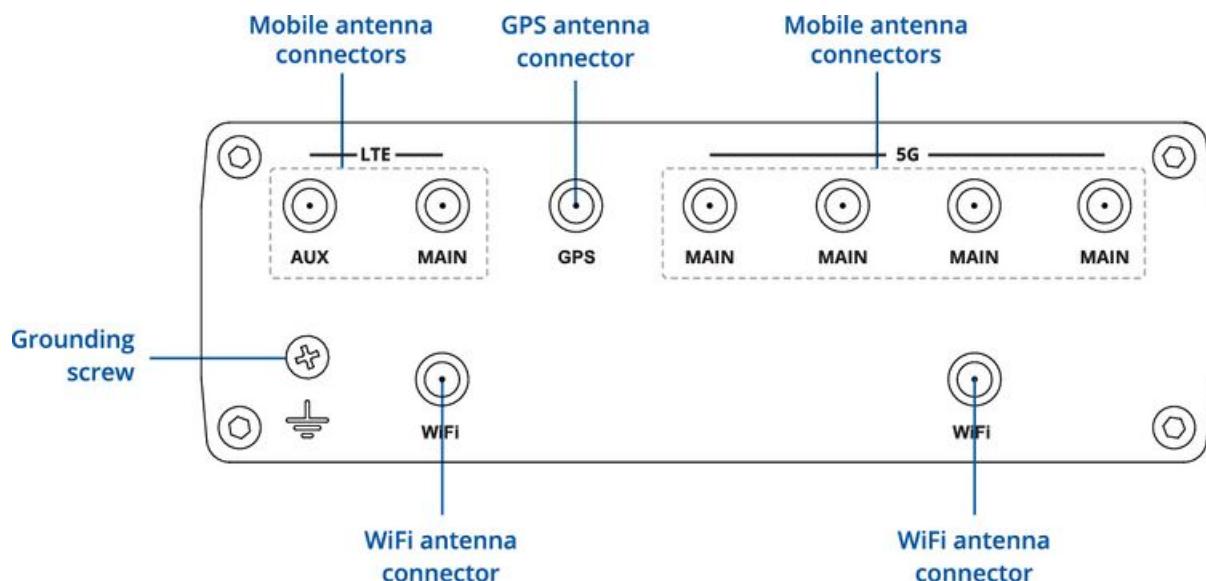
## Quick Start Guide

### Front view

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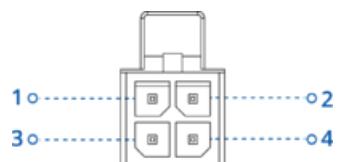
## Back view



## Connectors

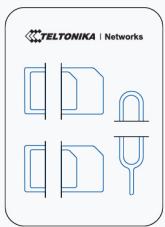
### POWER SOCKET PINOUT

NO.	DESCRIPTION	WIRE COLOR
1	Power	Red
2	Ground	Black
3	I/O	Green
4	I/O	White

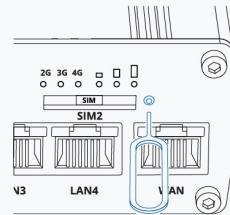


## Hardware installation

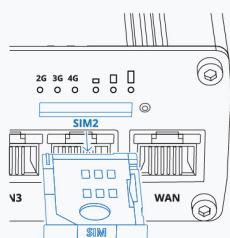
**1. Locate the SIM Adapter kit**



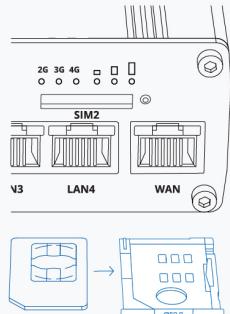
**2. Push the SIM holder button with the SIM needle.**



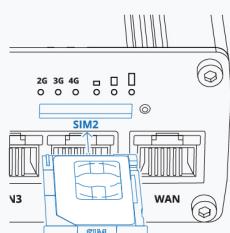
**3. Pull out the SIM holder.**



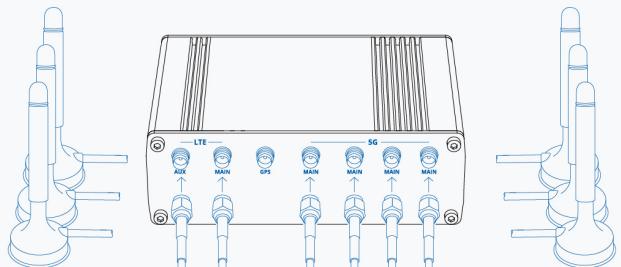
**4. Insert your SIM card into the SIM holder.**



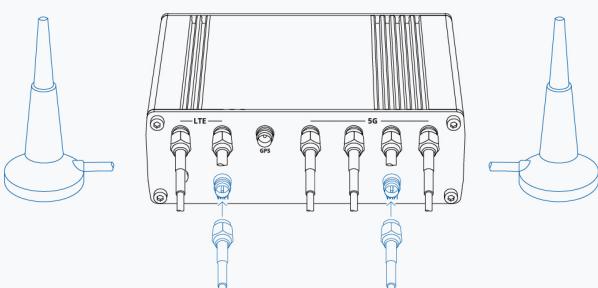
**5. Slide the SIM holder back into the router.**



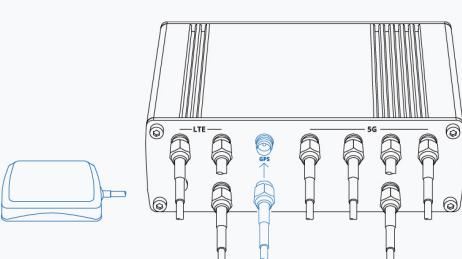
**6. Attach Mobile antennas to connectors labeled "AUX" and "MAIN".**



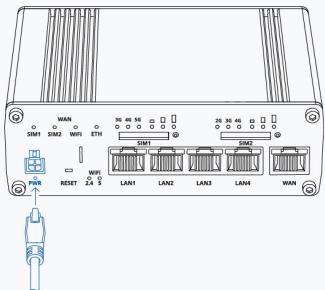
**7. Attach both WiFi antennas to connectors labeled "WiFi".**



**8. Attach the GPS antenna to the connector labeled "GPS".**

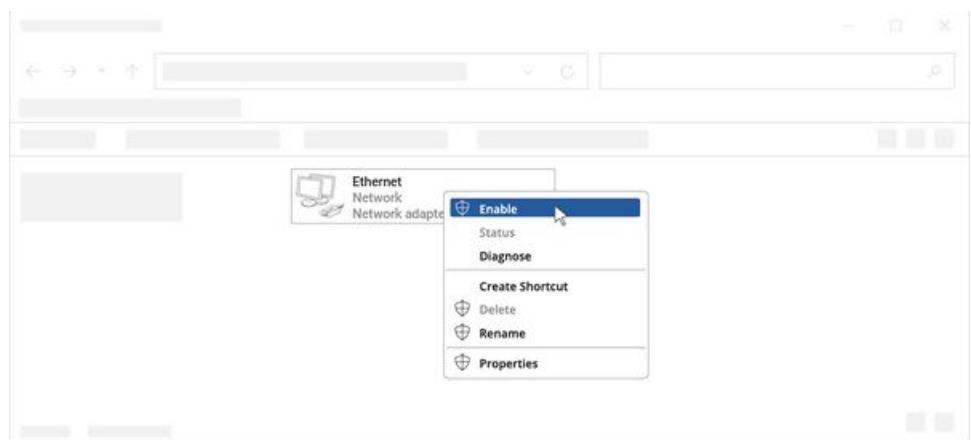


9. Connect the 4-pin connector to the power socket at the front of the device. Then, plug the power adapter into an electric outlet.



## 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.

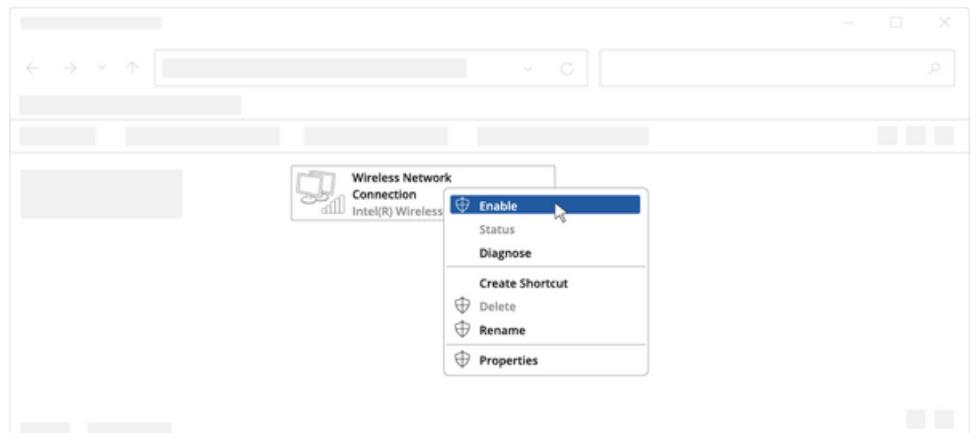


2. Check if IP and DNS are obtained automatically. Right-click on Network Adapter and select Properties. Then select **Internet Protocol Version 4** and click Properties.
3. If not selected, check to obtain an IP address and obtain DNS server address automatically. Click OK.



## 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.

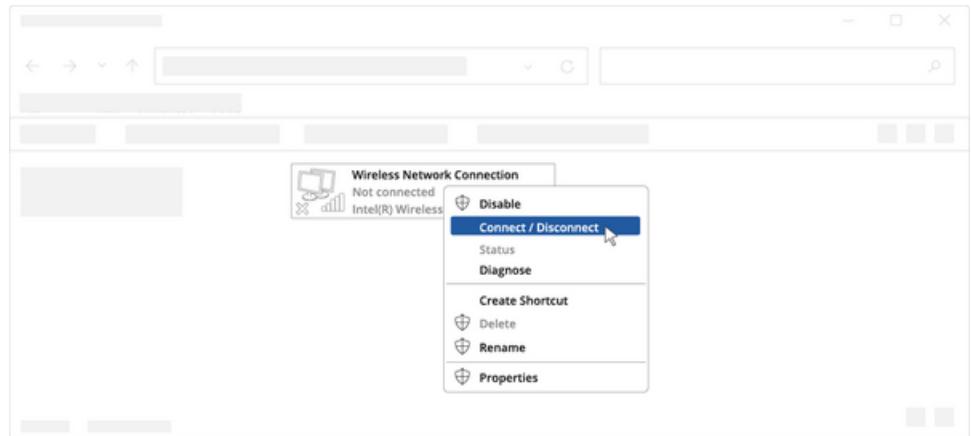


2. Check if IP and DNS are obtained automatically. Right-click on Wireless Network Adapter and select Properties. Then select **Internet Protocol Version 4** and click Properties.
3. If not selected, check to obtain an IP address and

**obtain DNS server address automatically.**  
Click OK.



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



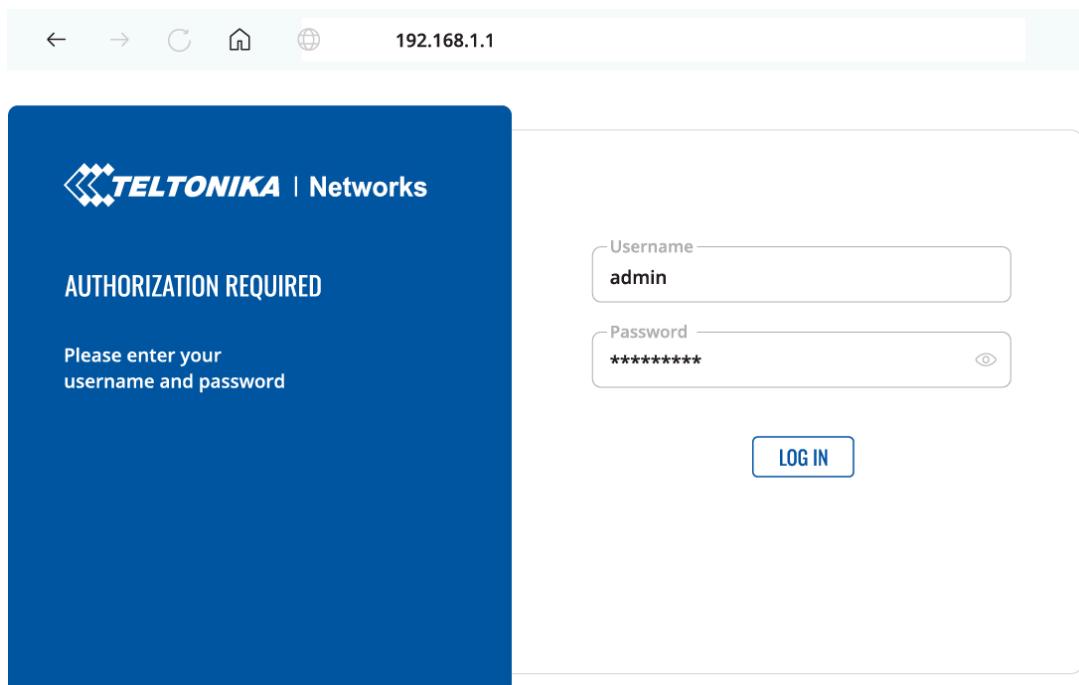
5. Choose the wireless network RUTM56 \*\*\*\* from the list and click Connect. Enter the Wi-Fi password located on the device's label.



## 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.
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