QSG RUTM52

This Wiki page contains the online version of the **Quick Start Guide (QSG)** for the **RUTM52 5G Router**. Here you will find an overview of the various components on the front and back of a RUTM52 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

Radio specifications	
RF technologies	4G, 5G, WiFi, GNSS
Max RF power	26 dBm@LTE, 26 dBm@5G, 20 dBm@WiFi 2.4G, 23 dBm@WiFi 5G
Bundled accessories specifications*	
Power adapter	Input: 0.8A@100-240 VAC, Output: 12 VDC, 2.0A, 4-pin plug
Mobile antenna	617~960/1400~2690/3300~5900MHz, VSWR<3, gain <4dBi, Omidirectional, SMA male connector
WiFi antenna	2400~2500 /4950~5850 MHz, 50Ω, VSWR<2, gain** 3dBi, omnidirectional, RP-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

* 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

RUTM52 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 RUTM52 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 RUTM52 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 RUTM52 splňuje základní požadavky a další ustanovení směrnic 2014/53/EU, 2011/65/EU, 2009/125/EC.
[DK] Danish	TELTONIKA NETWORKS erklærer hermed, at denne RUTM52 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 RUTM52 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 RUTM52 vastavust Direktiivide 2014/53/EU, 2011/65/EU, 2009/125/EC põhinõuetele ja nimetatud direktiivist tulenevatele teistele asjakohastele sätetele.
[FI] Finish	TELTONIKA NETWORKS vakuuttaa täten että RUTM52 tyyppinen 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 RUTM52 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 RUTM52 den grundlegenden Anforderungen und anderen Bestimmungen der Richtlinien 2014/53/EU, 2011/65/EU, 2009/125/EC entspricht.
[GR] Greek	Η TELTONIKA NETWORKS δηλώνει ότι το παρόν RUTM52 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 RUTM52 megfelel a 2014/53/EU, 2011/65/EU, 2009/125/EC irányelvek alapvető követelményeinek és egyéb rendelkezéseinek.
[IE] Irish	Leis seo, dearbhaíonn TELTONIKA NETWORKS go gcomhlíonann an RUTM52 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 RUTM52 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 RUTM52 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 RUTM52 atitinka esminius reikalavimus ir kitas 2014/53/EU, 2011/65/EU, 2009/125/EC Direktyvų nuostatas.
[MT] Maltese	TELTONIKA NETWORKS b'dan tiddikjara li dan RUTM52 jikkonforma mar-rekwiżiti essenzjali u dispożizzjonijiet oħra tad-Direttivi 2014/53/EU, 2011/65/EU, 2009/125/EC.
[NO] Norwegian	TELTONIKA NETWORKS erklærer herved at denne RUTM52 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 RUTM52 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 RUTM52 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 RUTM52 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 RUTM52 spĺňa základné požiadavky a ďalšie ustanovenia smerníc 2014/53/EU, 2011/65/EU, 2009/125/EC.
[SI] Slovenian	TELTONIKA NETWORKS izjavlja, da je ta RUTM52 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 RUTM52 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 RUTM52 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).

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 RUTM52 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/RUTM52.

Hereby, TELTONIKA NETWORKS declares that this RUTM52 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/RUTM52.

FCC

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.

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, mźme si le brouillage est.

RF exposure

This device meets the official requirements for exposure to radio waves. This dev designed and manufactured not to exceed the emission limits for exposure to r 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 RUTM52 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.

Operating Frequency / Maximum transmission power		
WCDMA	B1	1920-1980, 2110-2170 MHz, 24 dBm
	B5[1]	824-849, 869-894 MHz, 24 dBm
	B8	880-915, 925-960 MHz, 24 dBm
LTE-FDD	B1	1920-1980, 2110-2170 MHz, 23 dBm
	B3	1710-1785, 1805-1880 MHz, 23 dBm
	B5[1]	824-849, 869-894 MHz, 24 dBm
	B7	2500-2570, 2620-2690 MHz, 24 dBm
	B8	880-915, 925-960 MHz, 23 dBm
	B20	832-862, 791-821 MHz, 23 dBm
	B28	703-748, 758-803 MHz, 23 dBm
LTE-TDD	B38	2570-2620 MHz, 23 dBm
	B40	2300-2400 MHz, 23 dBm
	B41[2]	2300-2400 MHz, 23 dBm
5G NR (SA, NSA)	n1	1920-1680, 2110-2170 MHz, 23 dBm
	n3	1710-1785, 1805-1880 MHz, 23 dBm
	n5[1]	824-849, 869-894 MHz, 23 dBm
	n7	2500-2570, 2620-2690 MHz, 23 dBm
	n8	880-915, 925-960 MHz, 23 dBm
	n20	832-862, 791-821 MHz, 23 dBm
	n28	703-748, 758-803 MHz, 23 dBm
	n38	2570-2620 MHz, 23 dBm
	n40	2300-2400 MHz, 23 dBm
	n41	2496-2690 MHz, 26 dBm
	n77	3300-4200 MHz, 26 dBm
	n78	3300-3800 MHz, 26 dBm
Wi-Fi 2.4 GHz	2412-2472 MHz, 20 dBm	
Wi-Fi 5 GHz	UNII-1 Band 1	5180-5240 MHz, 23 dBm
	UNII-2A Band 2	5260-5320 MHz, 30 dBm
	UNII-2C Band 3	5500-5700 MHz, 30 dBm
	UNII-3 Band 4	5745-5825 MHz, 13.98 dBm

[1] – Not supported in Europe region.

[2] – Not supported in Europe and Oceania regions.

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

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 Radiation Exposure Statement

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.

Product Safety and Use

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 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.

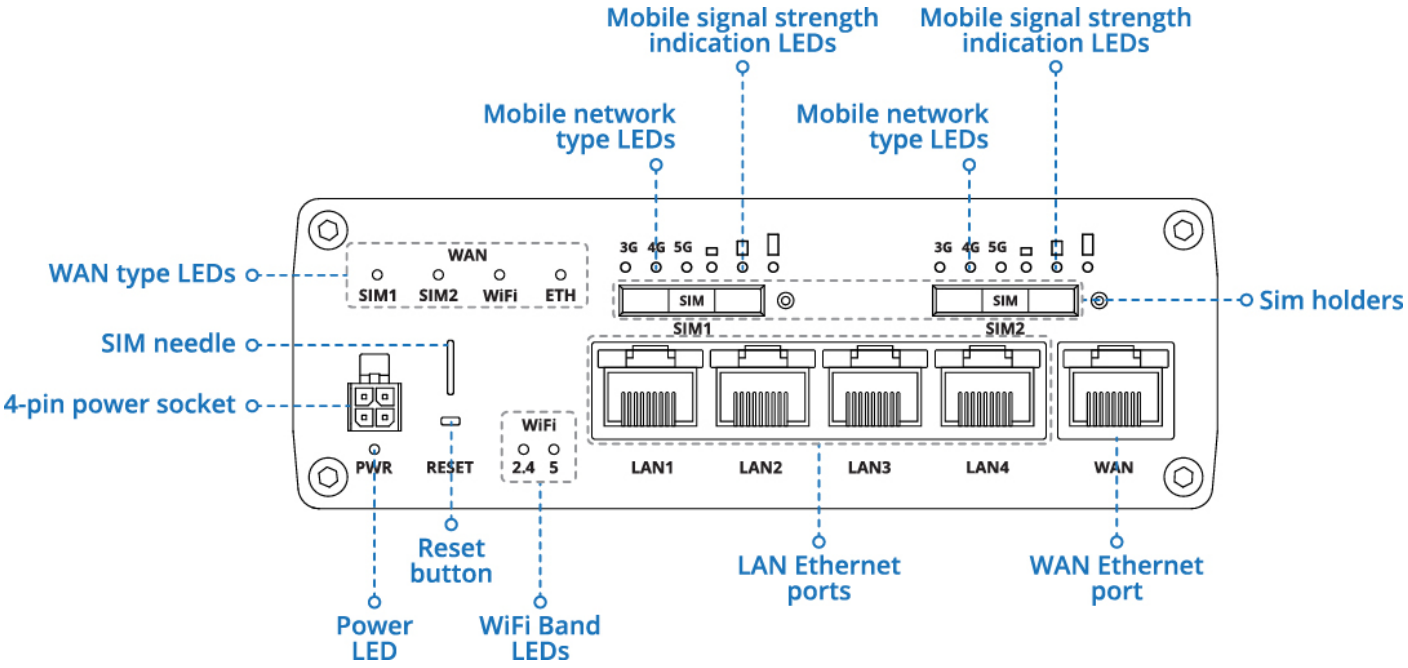
Product handling

- 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.

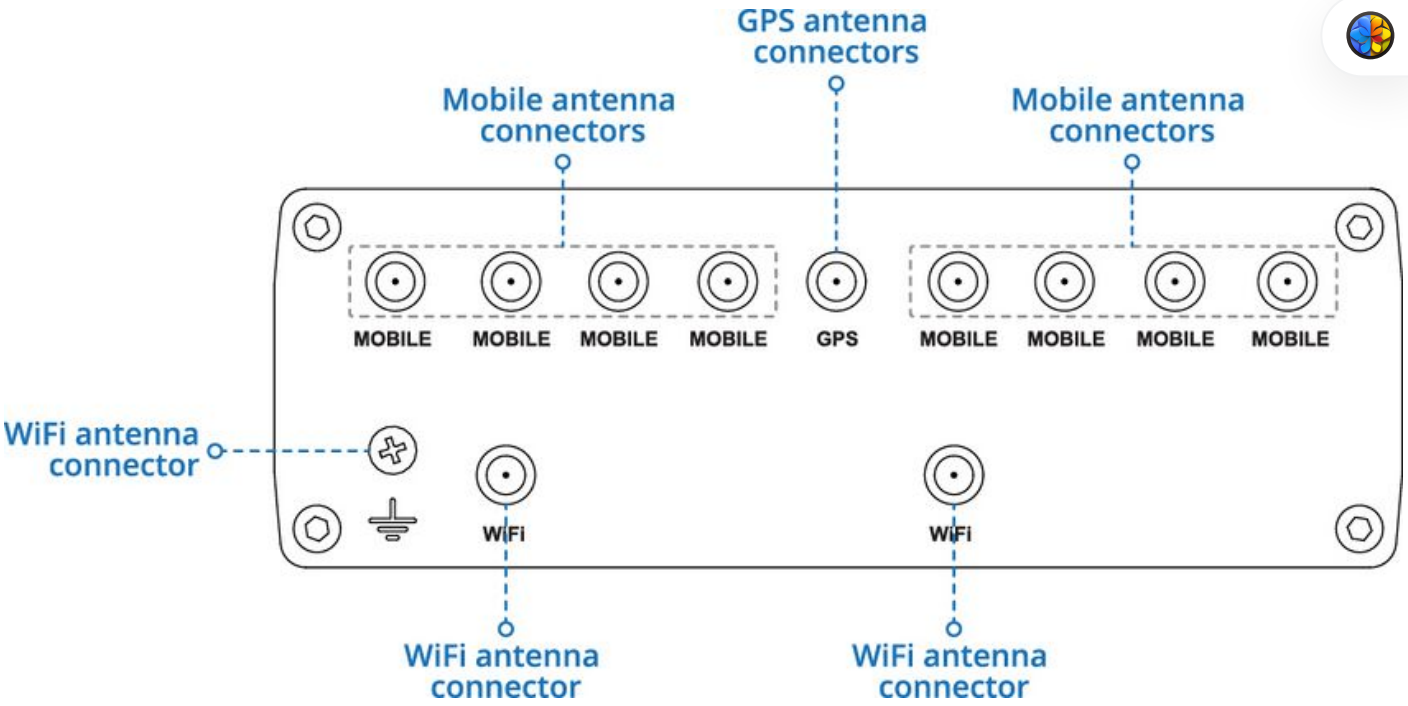
- Always treat your device and its accessories with care and keep it in a clean and dust-free place.
- Do not expose your device or its accessories to open flames or lit tobacco products, liquid, moisture, or high humidity.
- Do not drop, throw or try to bend your device or its accessories.
- Do not 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 (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 ite 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

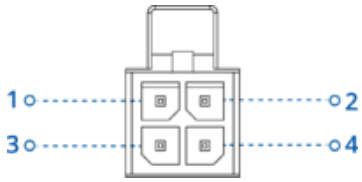


Back view



Connectors

POWER SOCKET PINOUT



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

eSIM

The Mobile eSIM feature on RUT241 eSIM devices allows users to manage eSIM profiles, configure settings, and use enhanced network capabilities. For more information please refer to the RUTM52 eSIM manual.

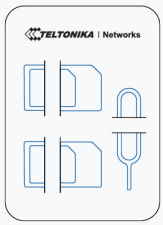
Note that eSIM functionality is only supported on RUTM52 eSIM (https://teltonika-networks.com/products/routers/rut241-esim) devices. Refer to the RUTM52 eSIM product page (https://teltonika-networks.com/products/routers/rut241-esim).

- **eSIM Profiles** - You can easily add new eSIM profiles or configure existing ones. This sec details profile management, including editing profile names and activation codes.
- **SIM Switch** - The SIM Switch provides you with the possibility to configure SIM switching rules, i.e., set up circumstances under which the device will perform a switch from using one SIM card to another.
- **Multiwan** - The Failover function allows you to backup your primary WAN connection in case it goes down.

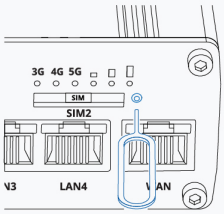
To learn more about all the eSIM feature and its settings, please refer to the RUT241 eSIM manual.

Hardware installation

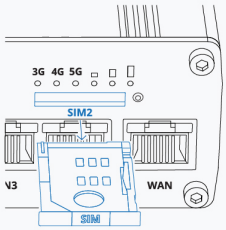
1. Locate the SIM Adapter kit



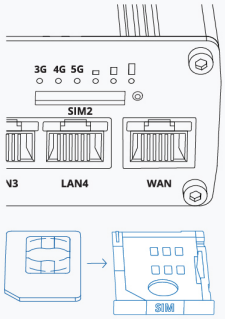
2. Push the SIM holder button with the SIM needle.



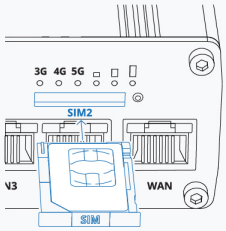
3. Pull out the SIM holder.



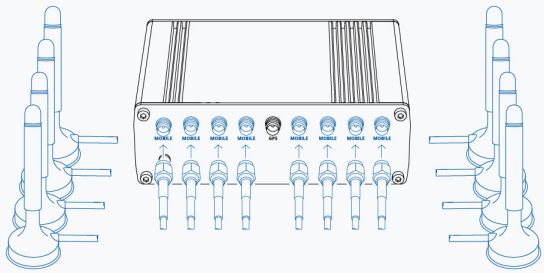
4. Insert your SIM card into the SIM holder.



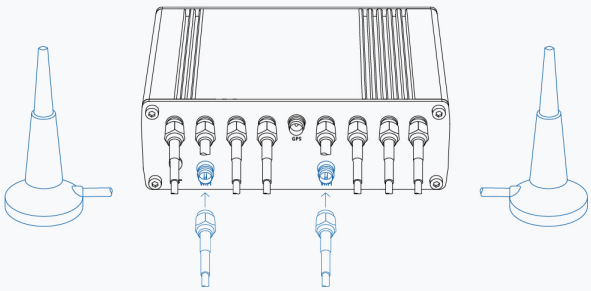
5. Slide the SIM holder back into the router.



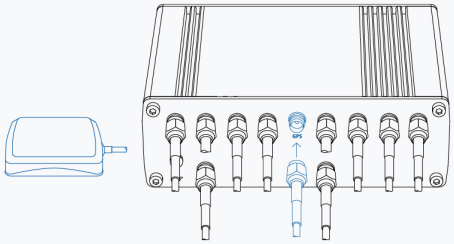
6. Attach Mobile antennas to connectors labeled "MOBILE."



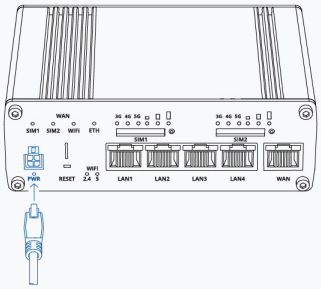
7. Attach both WiFi antennas to connectors labeled "WiFi".



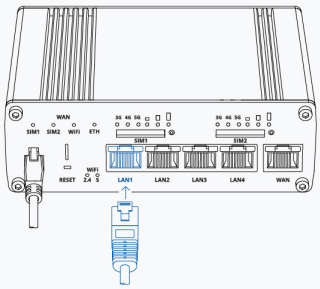
8. Attach the GPS antenna to the connector labeled "GPS".



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.

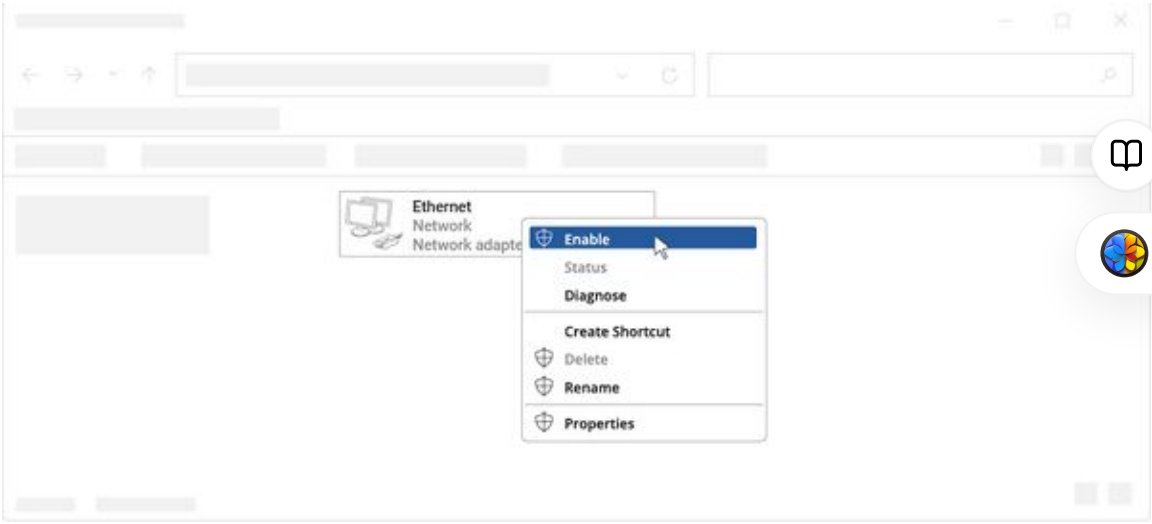


10. Connect to the device wirelessly using SSID and password provided on the device information label or use an Ethernet cable connected to a LAN port.



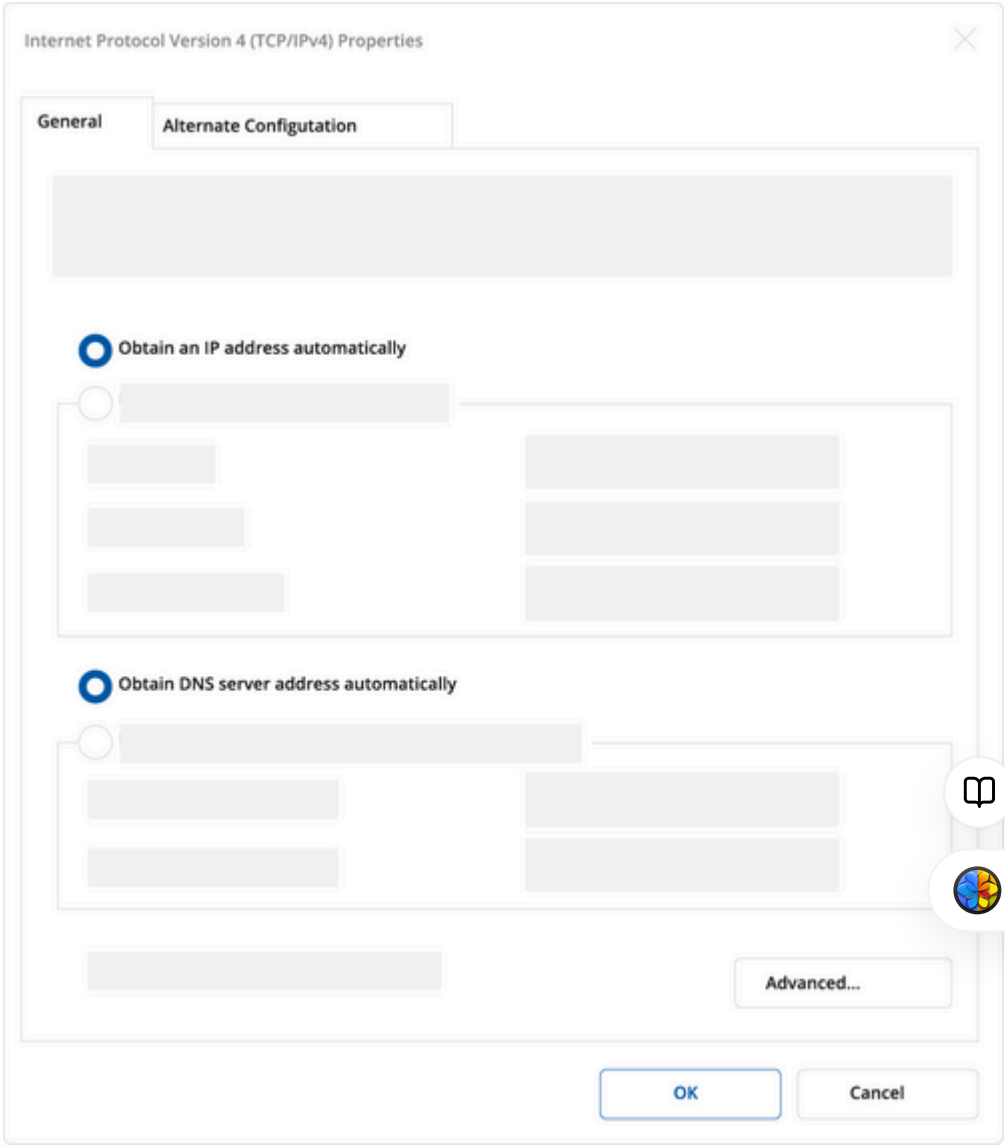
Configure your computer LAN (Windows)

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.



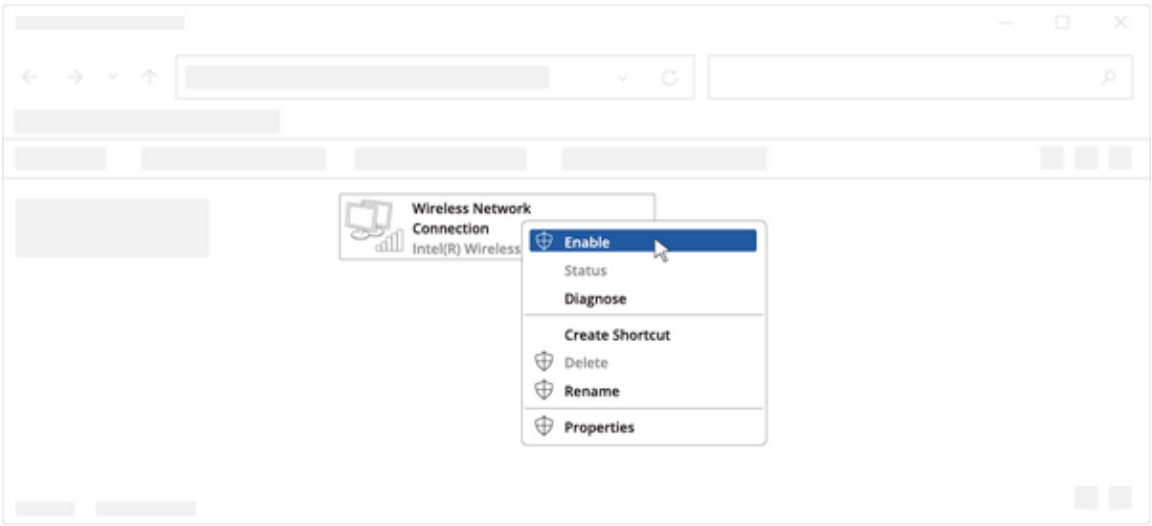
2. Check if IP and DNS are obtained automatically. Right-click on Wireless Network Adapter and select Properties. Then select **Internet Protocol Version 4** and click Properties.
3. If not

selected, check to **obtain an IP address** and **obtain DNS server address automatically**. Click OK.



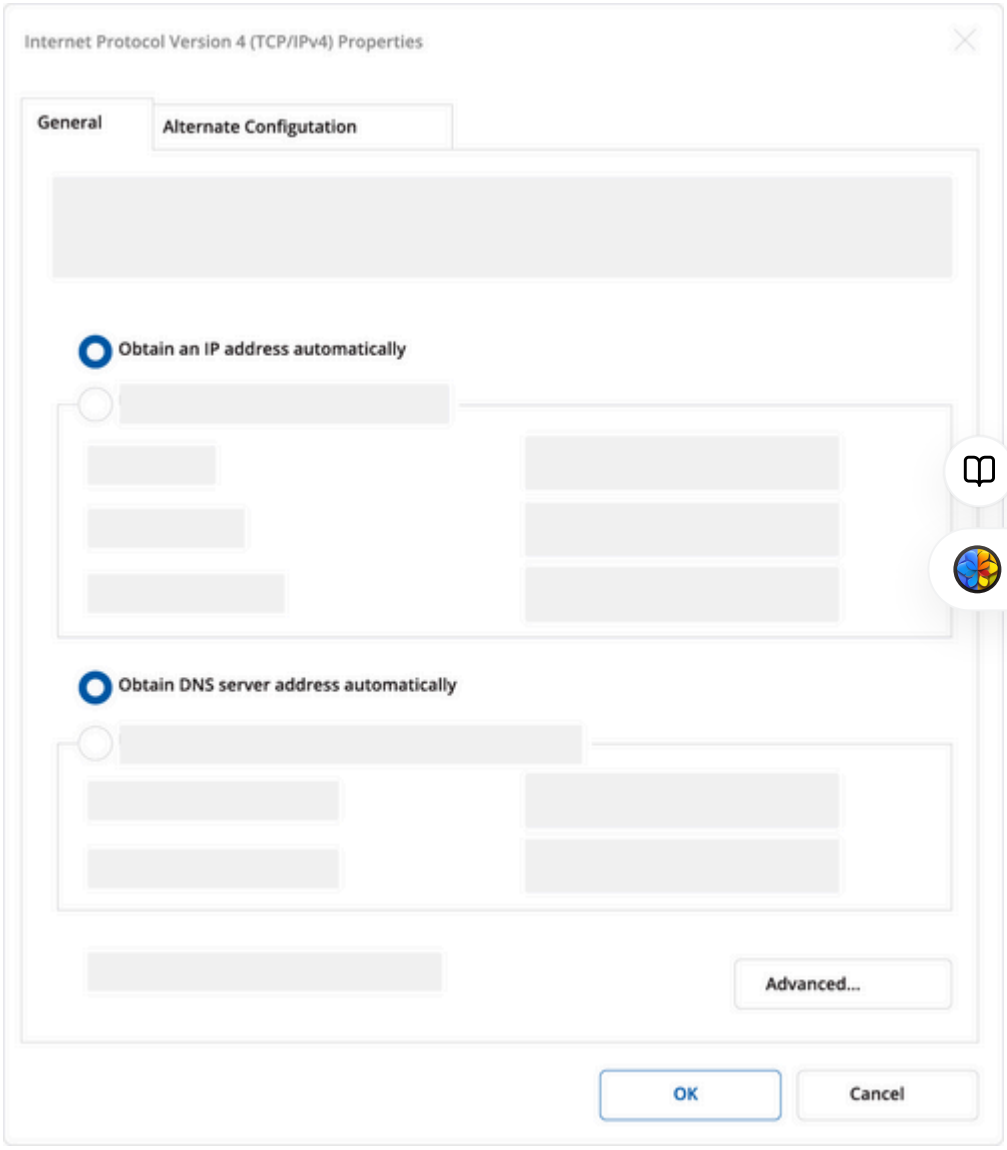
Configure your computer Wi-Fi (Windows)

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

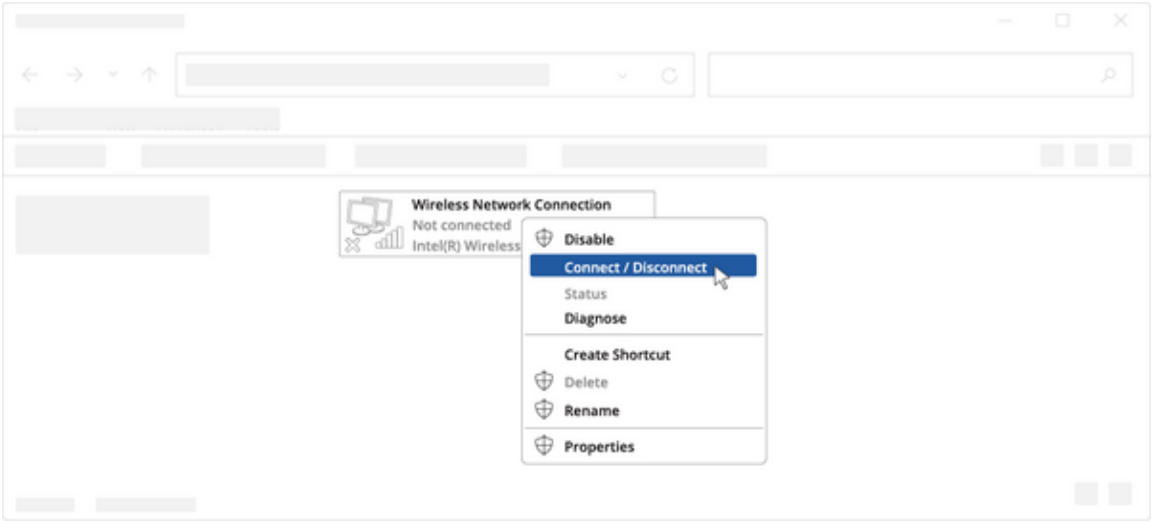


left panel, then right-click on Wireless Network Adapter, and select Enable.

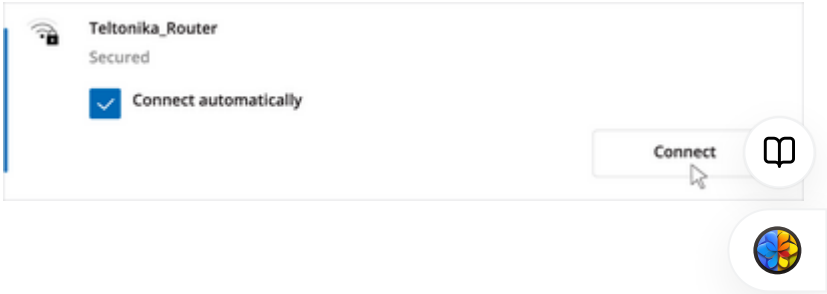
2. Check if IP and DNS are obtained automatically. Right-click on Wireless Network Adapter and select Properties. Then select **Internet Protocol Version 4** and click Properties.
3. If not selected, check to **obtain an IP address** and **obtain DNS server address automatically**. Click OK.



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



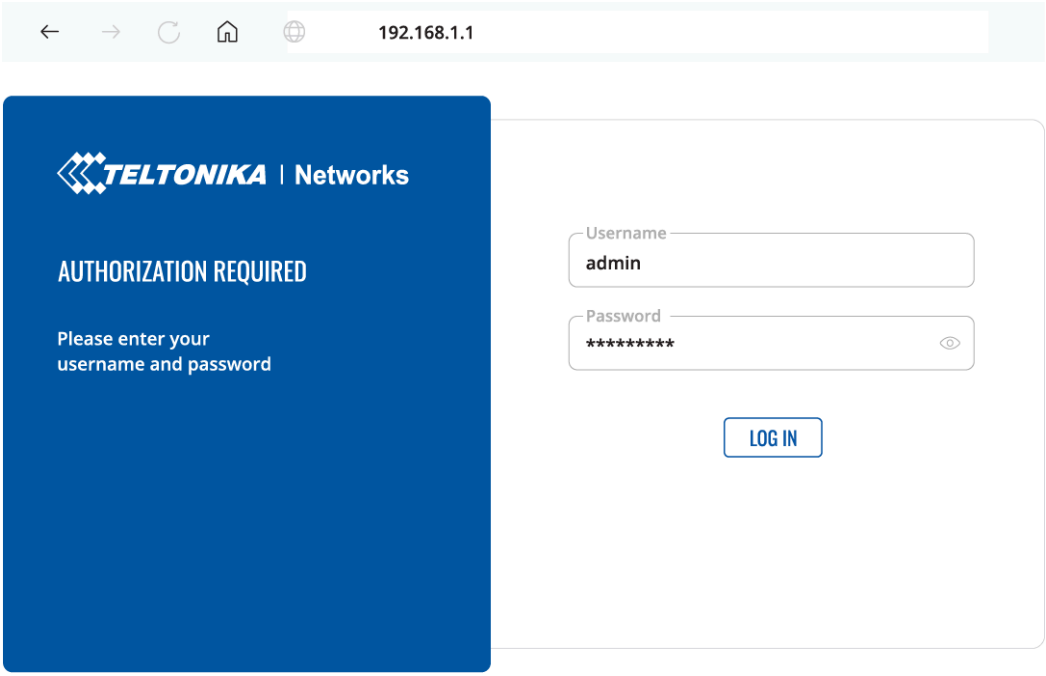
5. Choose the wireless network RUTM52 **** from the list and click Connect. Enter the Wi-Fi password located on the device's label.



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.

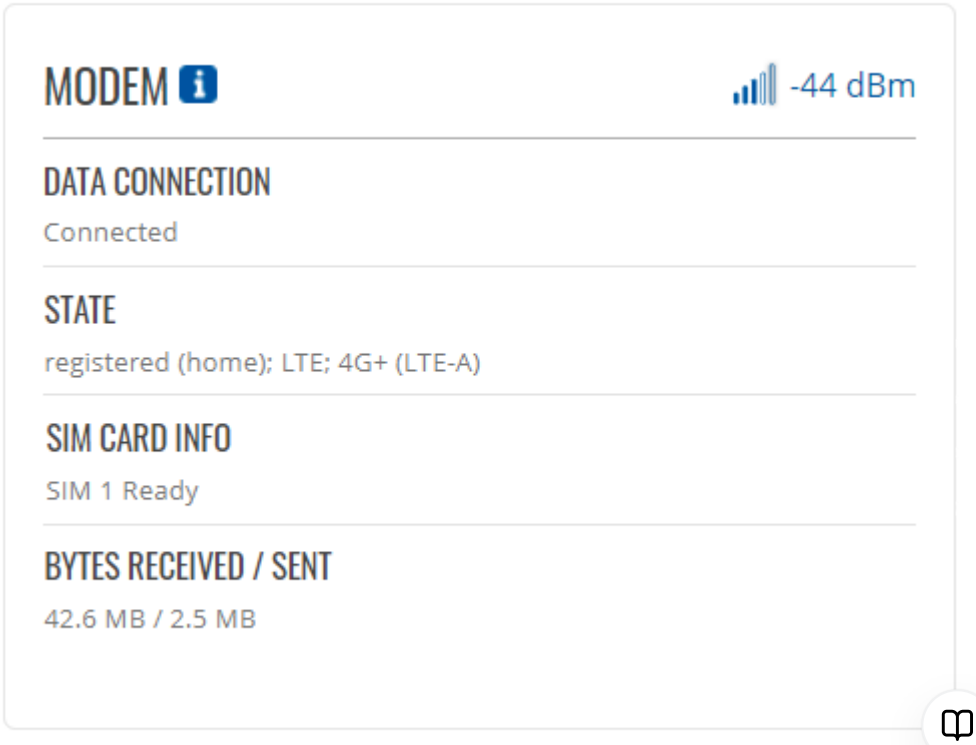
2. When prompted for authentication enter the username admin and enter the password located on the device information label/engraving.



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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