



QSG RUT906

Main Page > RUT Routers > RUT906 > **QSG RUT906**

This Wiki page contains the online version of the **Quick Start Guide (QSG)** for the industrial **RUT906 4G (LTE) Router**. Here you will find an overview of the various components on the front and back of a RUT906 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

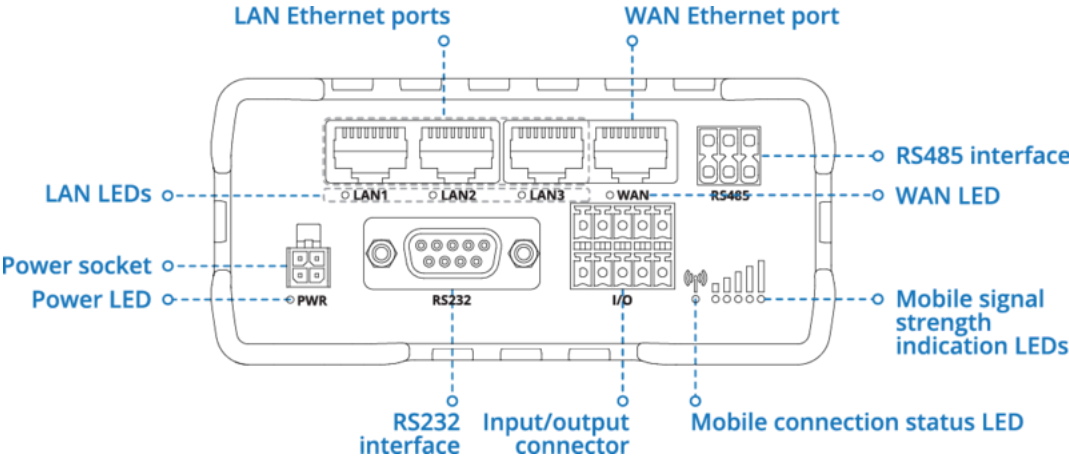
Radio specifications	
RF technologies	2G, 3G, 4G, Wi-Fi, GNSS
Max RF power	33 dBm@GSM900, 30 dBm@DCS1800, 24 dBm@WCDMA, 23 dBm@LTE, 20 dBm@ WiFi
Bundled accessories specifications*	
Power adapter	Input: 0.45A@100-240 VAC, Output: 9 VDC, 1A, 4-pin plug
Mobile antenna	699~868 / 1850~2690MHz, 50 Ω, VSWR<3, gain** 1 dBi, omnidirectional, SMA male connector
WiFi antenna	2400~2500 MHz, 50Ω, VSWR<2.5, gain** 3dBi, omnidirectional, RP-SMA male connector
GNSS antenna	1575.42~1602 MHz, 50Ω, 3-5 VDC, VSWR<2, gain** 28dB (typ.), RHCP polarization, SMA male connector

* Order code dependant.

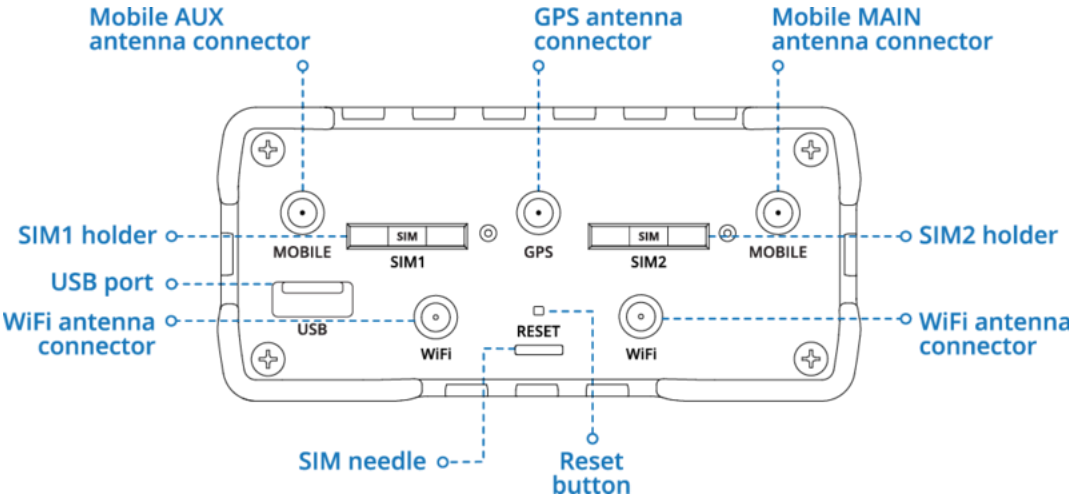
** Higher gain antenna can be connected to compensate for cable attenuation when a cable is used. The user is responsible for the compliance with the legal regulations.

Quick Start Guide

Front view



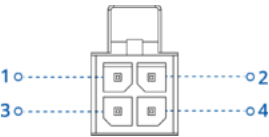
Back view



Connectors

POWER SOCKET PINOUT

NO.	DESCRIPTION	WIRE COLOR
1	Power	Red
2	Ground	Black
3	Input	Green
4	Output	White



RS232 CONNECTOR PINOUT

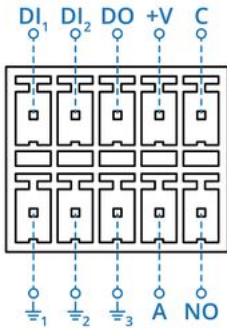
PIN	NAME	DESCRIPTION
1	DCD	Data Carrier Detect
2	RXD	Receive Data
3	TXD	Transmit Data
4	DTR	Data Terminal Ready
5	GND	Signal Ground
6	DSR	Data Set Ready
7	RTS	Ready To Send
8	CTS	Clear To Send
9	RI	Ring Indicator

RS485 CONNECTOR PINOUT

PIN	NAME	DESCRIPTION
1	D ₋ N	Driver negative signal
2	R ₋ N	Receiver negative signal
3	GND	Device ground
4	D ₊ P	Driver positive signal
5	R ₊ P	Receiver positive signal
6	-	Not connected

PIN	NAME	DESCRIPTION
1	D_N	Driver negative signal
2	R_N	Receiver negative signal
3	GND	Device ground
4	D_P	Driver positive signal
5	R_P	Receiver positive signal
6	-	Not connected

INPUT/OUTPUT CONNECTOR PINOUT



DI₁ and **⚡₁** - Digital input (dry type):

- 0-1.2 V is detected as logical "1"
- 1.8-3 V is detected as logical "0"

DI₂ and **⚡₂** - Digital galvanically isolated input:

- 0-4 V is detected as logical "0"
- 9-30 V is detected as logical "1"

DO and **⚡₃** - Galvanically isolated open collector (OC) output: 30 V, 250 mA.

+V and **⚡₃** - External VCC for **DO** (<30 V).

C & NO - Common and Normally Open contacts of the internal Non-Latching Relay respectively.

Maximum relay ratings: 4 A at 24 VDC, 4 A at 40 VAC.

A and **⚡₁** - ADC input. Analog voltage range: 0-24 V. The input can be configured for 4-20 mA sensor protocol as current measurement (ACL).*

⚡₁ - GND for DI1 and A.

⚡₂ - GND for DI2.

⚡₃ - GND for **DO** pins.

Note: input circuit components have tolerance of +/-1%.

* The deviation from the actual input voltage and the voltage measured by the device is dependent on the input voltage value:

≥ 1.5 V - the deviation is about ± 10 % and gets lower when the input voltage increases towards 5 V

≥ 5 V - the deviation does not exceed ± 3 %

≥ 9 V - the deviation does not exceed ± 2 %

Additional note: the deviation values specified above are applicable in temperatures of < 50 °C.

Under higher temperatures the deviation values become considerably higher.

Video Quick Start Guide

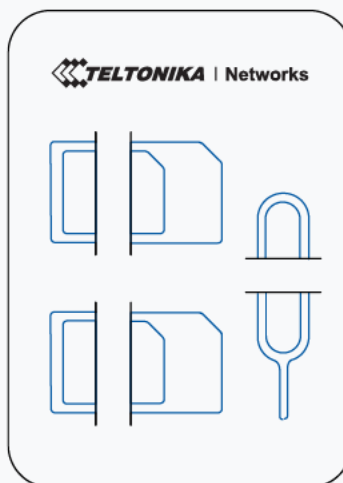
Need some help setting up your new Teltonika Networks RUT906 - E-mark 4G industrial cellular router? Watch our quick start guide video and follow the step by step instructions to easily set up your new router for operation.

Load video

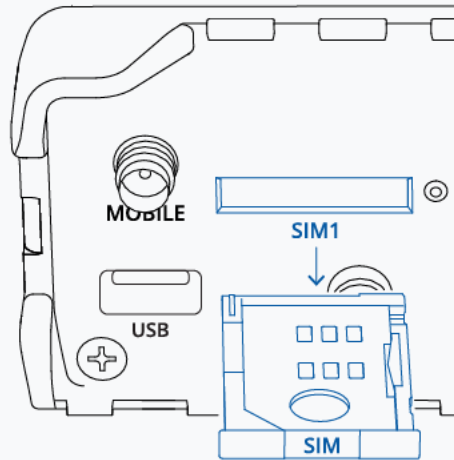
YouTube

Hardware installation

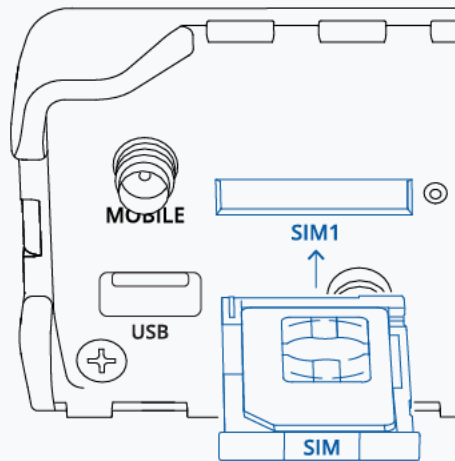
1. Locate the SIM Adapter kit



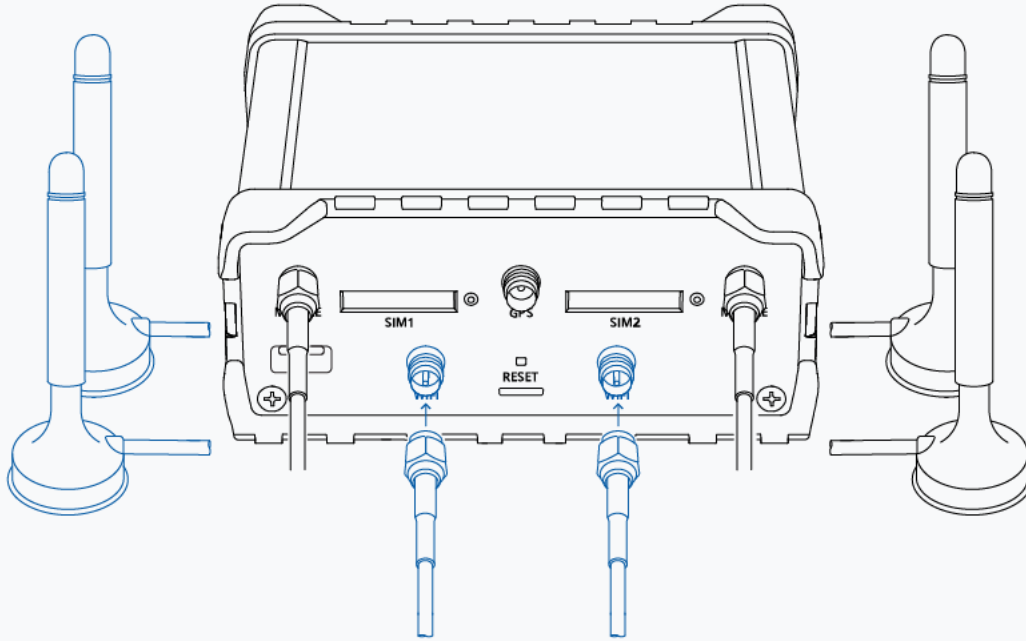
3. Pull out the SIM holder.



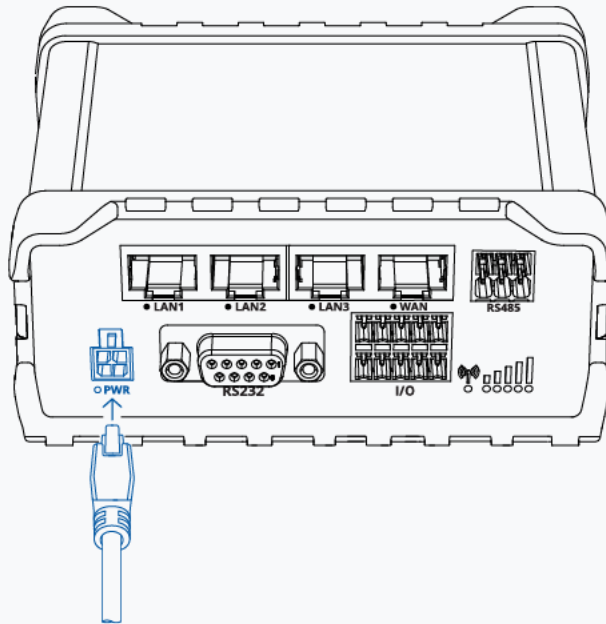
5. Slide the SIM holder back into the router.



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

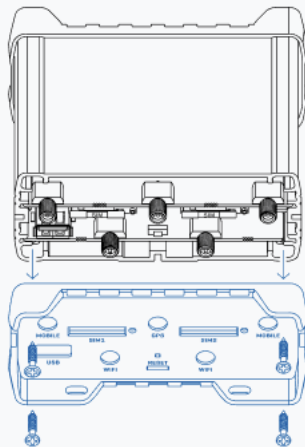


9. Connect the 4-pin connector to the power socket on the front of the device. Then plug the power adapter into an electric outlet.

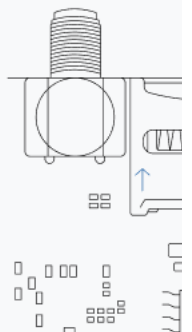


SD card installation

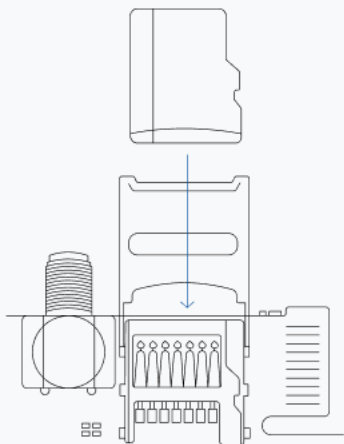
1. Disconnect from power and remove back panel from the device, pull out PCB board to reach SD card socket



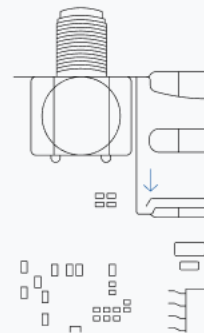
2. Slide SD card holder forward



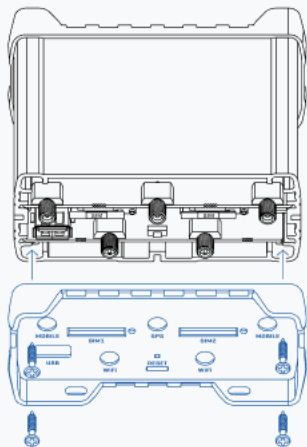
3. Carefully insert SD card into the socket
(pay attention to SD card and socket cutouts)



4. Close SD card socket holder until it locks



5. Slide back PCB into device housing and attach back panel. Now you can power your device and use it



eSIM

The Mobile eSIM feature on RUT906 eSIM devices allows users to manage eSIM profiles, configure settings, and use enhanced network capabilities. For more information please refer to the RUT906 eSIM manual.

Note that eSIM functionality is only supported on RUT906 eSIM (<https://teltonika-networks.com/products/routers/RUT906>) devices. Refer to the RUT906 eSIM product page (<https://teltonika-networks.com/products/routers/RUT906>).

- **eSIM Profiles** - You can easily add new eSIM profiles or configure existing ones. This section 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.

^ eSIM profiles

1 Demo	State: Enabled	Provider: Global1 ICCID: 8988308650100308054F	Edit Delete
----------	----------------	--	-------------

To learn more about all the eSIM feature and its settings, please refer to the [RUT906 eSIM manual](#).

Quick Start Guide for eSIM Bootstrap



The eSIM Bootstrap guide explains how devices with built-in eSIMs use a temporary 10 MB Bootstrap profile to establish limited connectivity and download the full operational eSIM profile. The Bootstrap profile activates automatically or can be enabled manually via the WebUI or RMS, and it remains valid for one year from manufacture. Once the full eSIM profile is downloaded and activated, the Bootstrap profile is removed.

▶ **Click to expand details**

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.

← → ↻ 🏠 🌐 192.168.1.1



TELTONIKA | Networks

AUTHORIZATION REQUIRED

Please enter your username and password

Username
admin

Password

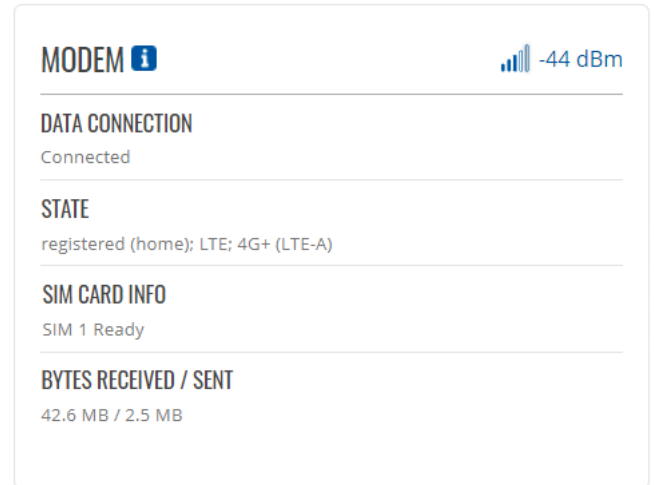
LOG IN

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.

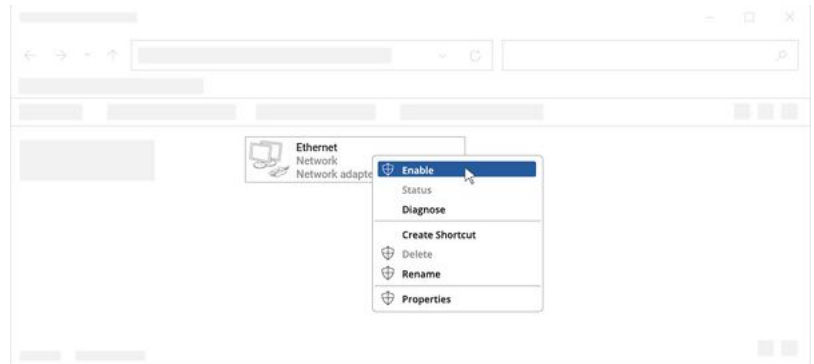
5. Finally, let's verify the Mobile signal strength. Go to the **Status — Network** page and pay attention to the **Signal Strength** indication.

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](#).



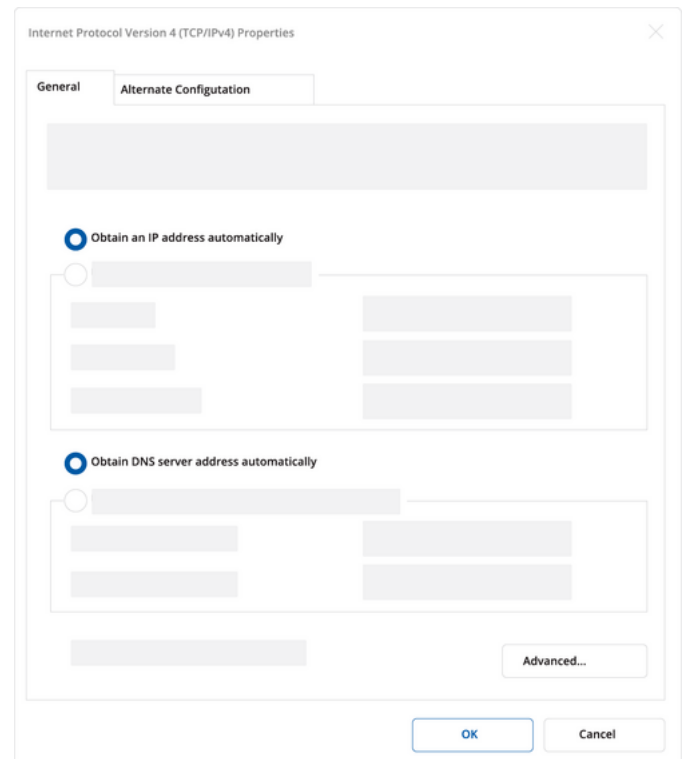
Configure your computer LAN (Windows)

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.



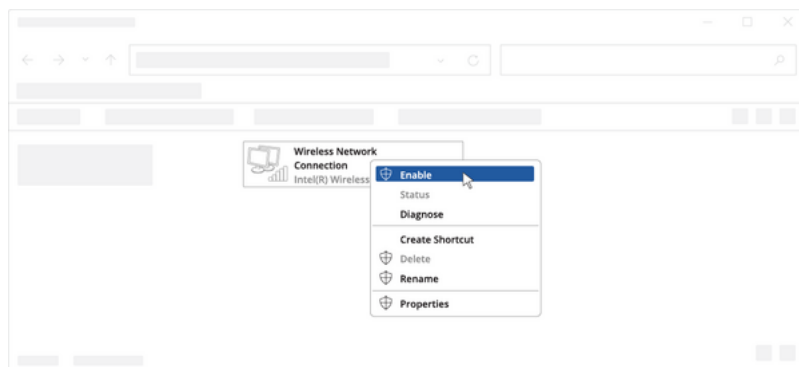
2. Check if IP and DNS are obtained automatically. Right-click on Network Adapter and select Properties. Then select **Internet Protocol Version 4** and click Properties.

3. If not selected, check to **obtain an IP address** and **obtain DNS server address automatically**. Click OK.

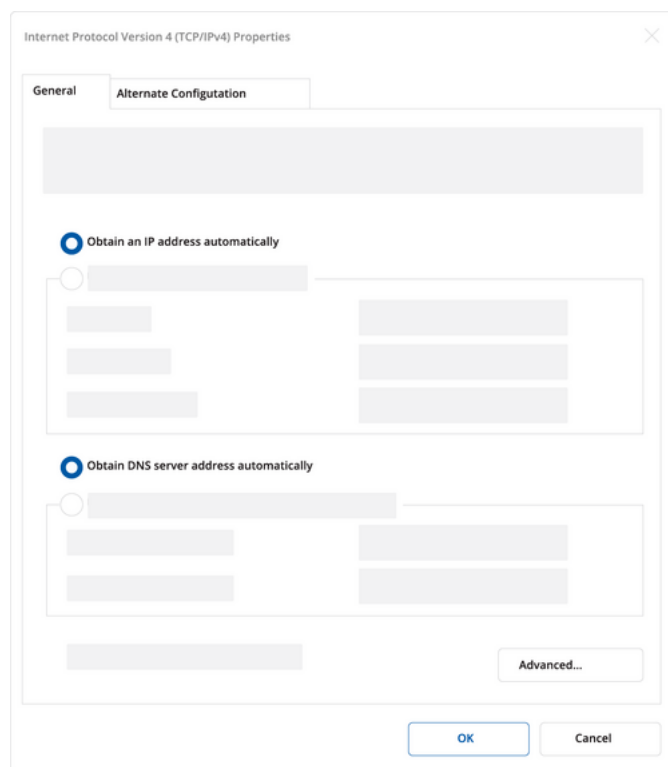


Configure your computer Wi-Fi (Windows)

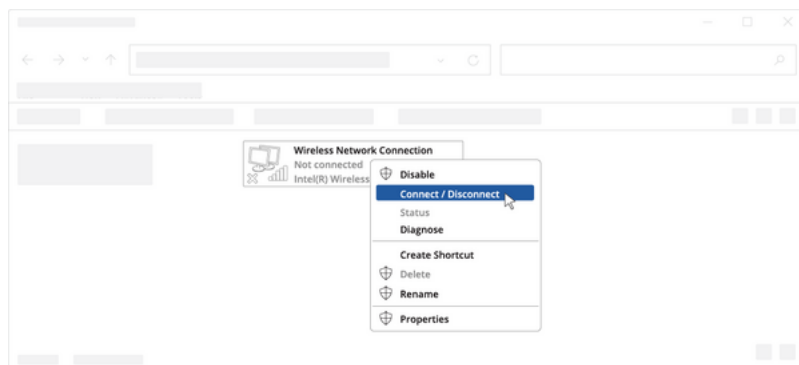
1. Ensure the Wireless network connection is Enabled. Go to Start — Control Panel — Network and Internet — Network and Sharing Center. Click on the **Change adapter settings** in the left panel, then right-click on Wireless Network Adapter, and select Enable.



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 RUT906 **** from the list and click Connect. Enter the Wi-Fi password located

on the device's label.



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.

Compliance

RUT906 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 настоящето, TELTONIKA NETWORKS декларира, че RUT906 е в съответствие със съществените изисквания и другите приложими разпоредби на Директива 2014/53/EU
[HR] Croatian	Ovim TELTONIKA NETWORKS izjavljuje da je ovaj RUT906 u skladu s bitnim zahtjevima i ostalim relevantnim odredbama Direktive 2014/53/EU
[CZ] Czech	TELTONIKA NETWORKS tímto prohlašuje, že RUT906 splňuje základní požadavky a všechna příslušná ustanovení Směrnice 2014/53/EU
[DK] Danish	Undertegnede TELTONIKA NETWORKS erklærer herved, at følgende udstyr RUT906 overholder de væsentlige krav og øvrige relevante krav i direktiv 2014/53/EU
[NL] Dutch	Hierbij verklaart TELTONIKA NETWORKS dat het toestel I RUT906 in overeenstemming is met de essentiële eisen en de andere relevante bepalingen van richtlijn 2014/53/EU
[EE] Estonian	Käesolevaga kinnitab TELTONIKA NETWORKS seadme RUT906 vastavust direktiivi 2014/53/EU põhinõuetele ja nimetatud direktiivist tulenevatele teistele asjakohastele sätetele
[FI] Finnish	TELTONIKA NETWORKS vakuuttaa täten että RUT906 tyyppinen laite on direktiivin 2014/53/EU oleellisten vaatimusten ja sitä koskevien direktiivin muiden ehtojen mukainen
[FR] French	TELTONIKA NETWORKS déclare que cette RUT906 est conforme aux exigences essentielles et aux autres dispositions pertinentes de la directive 2014/53/EU
[DE] German	Hiermit erklärt TELTONIKA NETWORKS, dass dieser RUT906 den grundlegenden Anforderungen und anderen relevanten Bestimmungen der Richtlinie 2014/53/EU entspricht
[GR] Greek	ΜΕ ΤΗΝ ΠΑΡΟΥΣΑ Ο ΚΑΤΑΣΚΕΥΑΣΤΗΣ TELTONIKA NETWORKS ΔΗΛΩΝΕΙ ΟΤΙ RUT906 ΣΥΜΜΟΡΦΩΝΕΤΑΙ ΠΡΟΣ ΤΙΣ ΟΥΣΙΩΔΕΙΣ ΑΠΑΙΤΗΣΕΙΣ ΚΑΙ ΤΙΣ ΛΟΙΠΕΣ ΣΧΕΤΙΚΕΣ ΔΙΑΤΑΞΕΙΣ ΤΗΣ ΟΔΗΓΙΑΣ 2014/53/EU
[HU] Hungarian	A TELTONIKA NETWORKS ezennel kijelenti, hogy a RUT906 típusú berendezés teljesíti az alapvető követelményeket és más 2014/53/EU iránylelvben meghatározott vonatkozó rendelkezéseket
[IE] Irish	Leis seo, dearbhaíonn TELTONIKA NETWORKS go gcomhlíonn an RUT906 seo bunriachtanais agus forálacha ábhartha eile Threoir 2014/53/EU
[IT] Italian	Con la presente, TELTONIKA NETWORKS dichiara che questo RUT906 è conforme ai requisiti essenziali e ad altre disposizioni pertinenti della Direttiva 2014/53/EU
[LV] Latvian	Ar šo TELTONIKA NETWORKS deklarē, ka RUT906 atbilst Direktīvas 2014/53/EU būtiskajām prasībām un citiem ar to saistītajiem noteikumiem
[LT] Lithuanian	Šiuo dokumentu UAB TELTONIKA NETWORKS deklaruoja, kad šis RUT906 atitinka esminius reikalavimus ir kitas 2014/53/EU Direktyvos nuostatas
[MT] Maltese	Hawnhekk, TELTONIKA NETWORKS tidjikkja li dan I-RUT906 huwa konformi mar-rekwiżiti essenzjali u dispożizzjonijiet rilevanti oħra tad Direttiva 2014/53/EU
[NO] Norwegian	TELTONIKA NETWORKS Erklærer herved at RUT906 er i samsvar med de grunnleggende krav og øvrige relevante krav i direktiv 2014/53/EU
[PL] Polish	Niniejszym TELTONIKA NETWORKS deklaruje że RUT906 jest zgodny z zasadniczymi wymaganiami i innymi właściwymi postanowieniami Dyrektywy 2014/53/EU
[PT] Portuguese	Eu, TELTONIKA NETWORKS declaro que o RUT906 cumpre os requisitos essenciais e outras provisões relevantes da Directiva 2014/53/EU
[RO] Romanian	Prin prezenta, TELTONIKA NETWORKS declară că aparatul RUT906 este în conformitate cu cerințele esențiale și cu alte prevederi pertinente ale Directivei 2014/53/EU
[SK] Slovak	Spoločnosť TELTONIKA NETWORKS týmto vyhlasuje, že smerovač RUT906 je v súlade so základnými požiadavkami a ďalšími príslušnými ustanoveniami smernice 2014/53/EU
[SI] Slovenian	TELTONIKA NETWORKS izjavlja, da je ta RUT906 v skladu z bistvenimi zahtevami in drugimi relevantnimi določili direktive 2014/53/EU
[ES] Spanish	Por la presente, TELTONIKA NETWORKS declara que este RUT906 cumple con los requisitos esenciales y otras exigencias relevantes de la Directiva 2014/53/EU
[SE] Swedish	Härmed intygar TELTONIKA NETWORKS att denna RUT906 är i överensstämmelse med de väsentliga egenskapskrav och övriga relevanta bestämmelser som framgår av direktiv 2014/53/EU

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 RUT906 is in compliance with the essential requirements and other relevant provisions of Directive 2014/53/EU. The full text of the EU declaration of conformity is available at the following internet address: https://wiki.teltonika-networks.com/view/RUT906_CE/RED.



Hereby, TELTONIKA NETWORKS declares that the radio equipment type RUT906 is in compliance with Radio Equipment Regulations 2017. The full text of the UK declaration of conformity is available at the following internet address: https://wiki.teltonika-networks.com/view/RUT906_UKCA.

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 RUT906 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	
GSM900	33 dBm
DCS1800	30 dBm
WCDMA	24 dBm
LTE	23 dBm
WiFi	20 dBm

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 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, 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.

Retrieved from "https://wiki.teltonika-networks.com/index.php?title=QSG_RUT906&oldid=179701"