USER MANUAL

RUT230 3G Router

Legal notice

Attention

Before using the device we strongly recommend reading this user manual first.

Do not rip open the device. Do not touch the device if the device block is broken.

All wireless devices for data transferring may be susceptible to interference, which could affect performance.

The device is not water-resistant. Keep it dry.

Device is powered by low voltage +9V DC power adapter.

Safety information

The RUT230 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.

You have to be familiar with the safety requirements before using the device!

Specifications	
Software	RUT230_R_XX.XX.XXX
Frequency bands*	EEE802,11b/g/n 2400 MHz, GSM/EDGE/3G, UMTS/HSPA+
Max. RF power	20 dBm@WiFi, 33 dBm@GSM/GPRS/EDGE, 24 dBm@UMTS
Representative accessories specifications	
Power	AC/DC power adapter 9 V 1 A, 4 pin plug
GSM/UMTS antenna	830-960/1710-2170 MHz, 50 Ω, VSWR ≤ 2, gain** 1 dBi, omnidirectional, SMA male connector
WiFi antenna	2401-2462 MHz, 50 Ω, gain** 3dBi, VSWR ≤ 1.5, omnidirectional, RP-SMA connector

* Supported frequency bands are dependent on geographical location and may not be available in all markets.

** If an extension cable is used to attach the antenna, the antenna gain may be higher by the amount of cable attenuation. The user is responsible for the compliance with the legal regulations.

This sign on the package means that it is necessary to read the Users 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.

To avoid burning and voltage caused traumas, of the personnel working with the device, please follow these safety requirements:

The device is intended for supply from a Limited Power Source (LPS) that power consumption should not exceed 15VA and current rating of over current protective device should not exceed 2A.

The highest transient over voltage in the output (secondary circuit) of used PSU shall not exceed 36V peak.

The device can be used with the Personal Computer (first safety class) or Notebook (second safety class). Associated equipment: PSU (power supply unit) (LPS) and personal computer (PC) shall comply with the requirements of standard EN 60950-1.

Do not mount or service the device during a thunderstorm.

To avoid mechanical damages to the device it is recommended to transport it packed in a damage-proof pack.

Protection in primary circuits of associated PC and PSU (LPS) against short circuits and earth faults of associated PC shall be provided as part of the building installation.

To avoid mechanical damage to the device it is recommended to transport it packed in a damage-proof pack. When using the device it should be placed so that its indicating LEDs would be visible as they inform in which working mode the device is in and if it has any working problems.

Protection against over current, short circuiting and earth faults should be provided as a part of the building installation.

Signal level of the device depends on the environment in which it is working in. In case the device starts working insufficiently, please refer to qualified personnel in order to repair this product. We recommend forwarding it to a repair center or the manufacturer. There are no exchangeable parts inside the device.

Introduction

Thank you for purchasing a RUT230 3G router! RUT230 is part of the RUT2xx series of compact mobile routers with high speed wireless and Ethernet connections.

This router is ideal for people who'd like to share their internet on the go, as it is not restricted by a cumbersome cable connection. Unrestricted, but not forgotten: the router still supports internet distribution via a broadband cable, simply plug it in to the wan port, set the router to a correct mode and you are ready to browse.

For in-depth information on how to use and configure a RUT230 router, visit our wiki page:
http://wiki.teltonika.lt/index.php?title=RUT230

Hardware installation

1. Push the SIM holder with the SIM needle.
2. Pull out the SIM holder
3. Insert your SIM card into the SIM holder
4. Slide the SIM holder back into the router.

5. Attach 3G and WiFi antennas.
6. Connect the power adapter to the socket on the front of the device. Then plug the other end of the power adapter into the power socket.
7. Connect to the device wirelessly (SSID: RUT230_001E42 ****** (unique to each device)) or use an Ethernet cable and plug it into the LAN port.

Front and back panels

Front view

1. Power LED
2. Power socket
3. Mobile network type LED
4. SIM holder
5. Mobile signal strength indication LEDs
6. Ethernet ports
7. LAN LED
8. WAN LED

| Power socket pinout		
No.	Description	Wire color
1	Power	Red
2	Ground	Black
3	Input	Green
4	Output	White

Back view

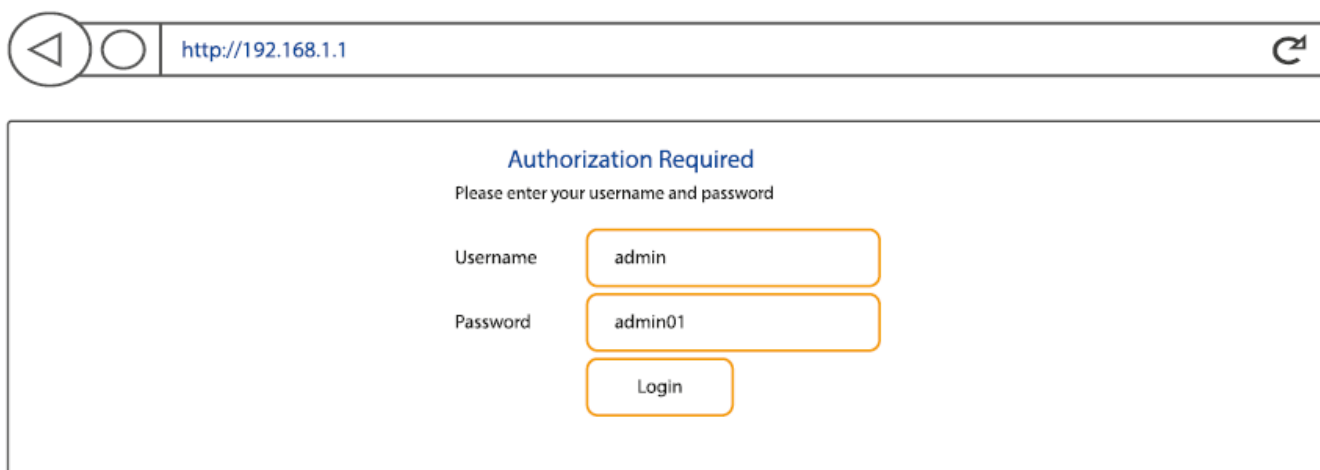1. WiFi antenna connector
2. Reset button
3. 3G antenna connector

Configure your computer (Windows)

1. Enable the wireless network connection (go to Start > Control Panel > Network and Internet > Network and Sharing Center. In the left panel click Change adapter settings link. Right click on Wireless Network Connection and select Enable).

2. Setup the wireless network adapter on your computer (right click on Wireless Network Connection and select Properties). After that select Internet Protocol Version 4 (TCP/IP) and click Properties).

3. Select Obtain IP address automatically and Obtain DNS server address automatically if they are not selected. Click OK.

4. Right click on Wireless Network Connection and click Connect to see available wireless networks.

5. Choose the wireless network RUT230_001E42 ****** from the list and click Connect.
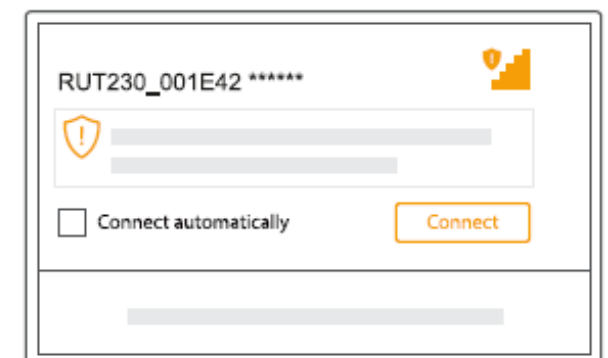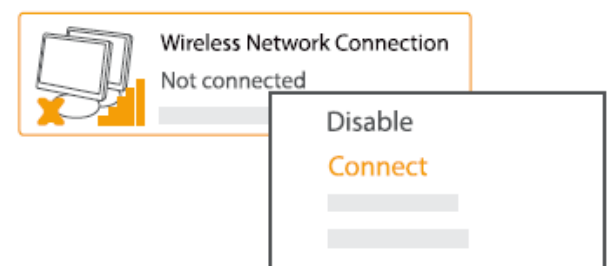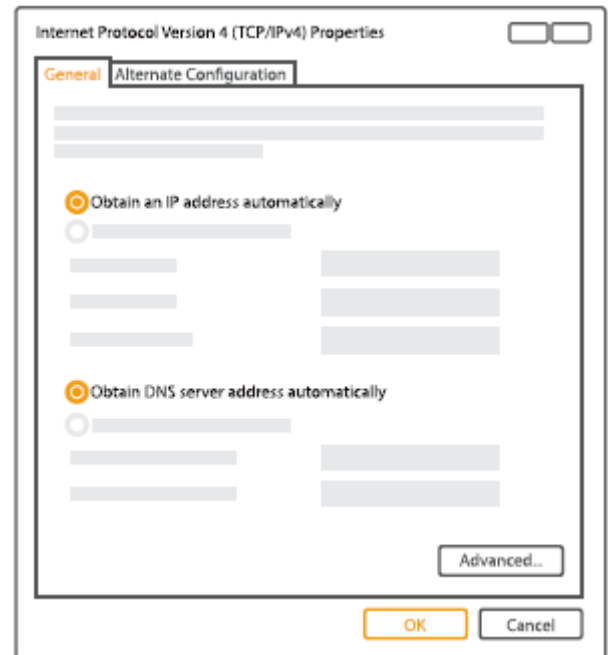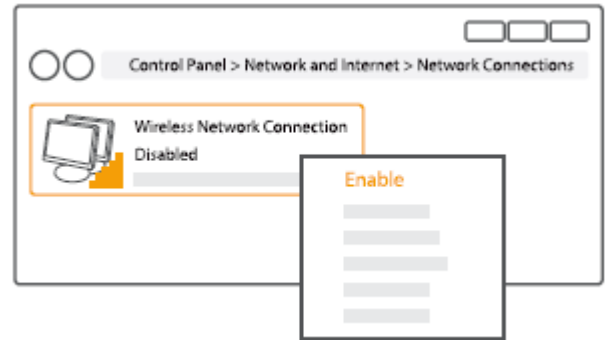
Login to device

1. To enter the routers Web interface type http://192.168.1.1 into your internet browser's URL field.

2. Use the following parameters when prompted for authentication:
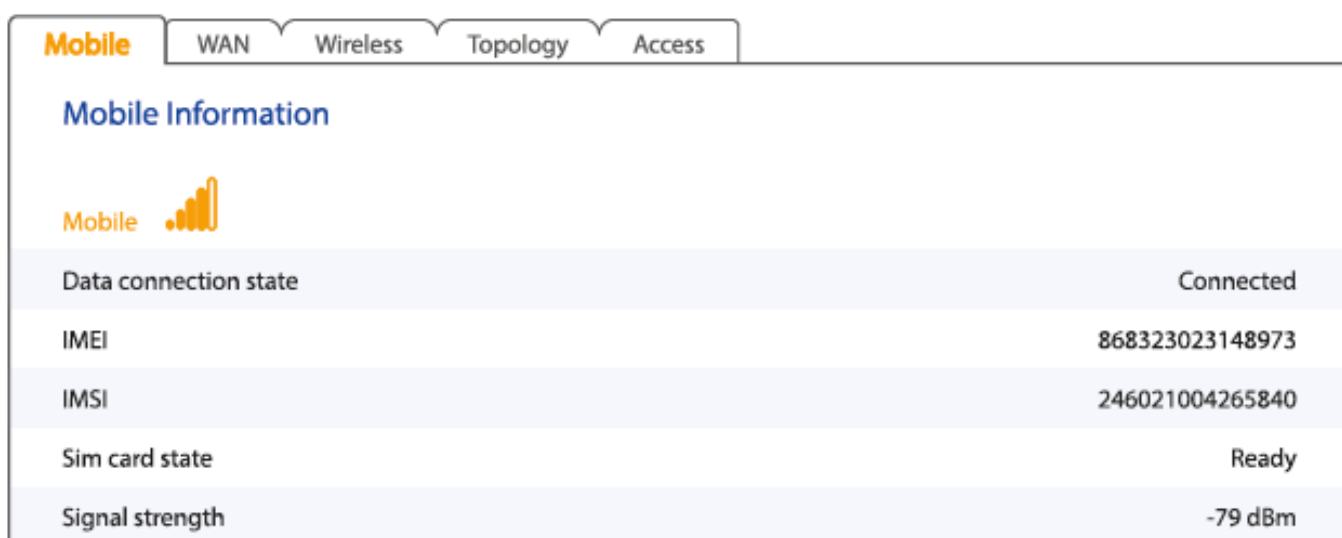
3. Configuration Wizard will start after logging in. It is necessary to complete Configuration Wizard to setup the router to the correct mode. You can leave default settings but it is strongly recommended that you change the default password and enable Wireless Security.

4. Go to Status > Network information and pay attention to Signal Strength. To maximize the performance try adjusting the antennas or changing the location of your device to achieve the best signal conditions.

LED indications

- Singal strength status LEDs turned on: the router is turning on

- 2G and 3G LEDs constantly blinking every 1 sec.: no SIM or bad PIN

- 2G/3G LEDs blinking every 1 sec.: connected to 2G/3G, but no data session established

- Blinking from 2G LED to 3G LED every 1 sec.: SIM holder not inserted

- 2G/3G LED turned on: connected to 2G/3G with session

- 2G/3G LED blinking rapidly: connected to 2G/3G with data session and data is being transferred

Signal strength LEDs

No. of lit up LEDs	Signal strength value
0	≤ -111 dBm
1	-110 dBm to -97 dBm
2	-96 dBm to -82 dBm
3	-81 dBm to -67 dBm
4	-66 dBm to -52 dBm
5	≥ -51 dBm

Specifications

Ethernet

- IEEE 802.3, IEEE 802.3u standards
- 1 x LAN 10/100Mbps Ethernet ports
- 1 x WAN 10/100Mbps Ethernet port
- Supports Auto MDI/MDIX

Wi-Fi

- IEEE 802.11b/g/n WiFi standards
- AP and STA modes
- 64/128-bit WEP, WPA, WPA2, WPA&WPA2 encryption methods
- 2.401 – 2.495GHz Wi-Fi frequency range*
- 20dBm max WiFi TX power
- SSID stealth mode and access control based on MAC address

Hardware

- High performance 400 MHz CPU with 64 Mbytes of DDR2 memory
- External SIM holder
- pin DC connector with 1 x Digital input and 1 x Digital output
- Reset/restore to default button
- 1 x SMA for 3G, 1 x RP-SMA for WiFi antenna connectors
- 2x Ethernet LEDs, 1 x power LED
- 5x signal strength LEDs, 2 x connection type indication LEDs
- Bottom and sideways DIN rail mounting slits

Electrical, Mechanical & Environmental

Dimensions (W x D x H)	83mm x 74mm x 25mm
Weight	125g
Power supply	100 – 240 VAC -> 9 VDC wall adapter
Input voltage range	9 – 30VDC
Power consumption	< 5W
Operating temperature	-40° to 75° C
Storage temperature	-45° to 80° C
Operating humidity	10% to 90% Non-condensing
Storage humidity	5% to 95% Non-condensing

Supported frequency bands are dependent on geographical location and may not be available in all markets

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CE Declaration of Conformity

CE 2014/35/EU, 2014/30/EU. The full text of the EU declaration of conformity is available at the following internet address: http://teltonika.lt/product/RUT230/

[EN] English	Hereby, Teltonika declares that the radio equipment type RUT230 is in compliance with Directives: 2014/53/EU
[BG] Bulgarian	По този начин Teltonika декларира, че радиоустройството тип RUT230 е в съответствие с директивите: 2014/53/EU
[CZ] Czech	Tím Teltonika prohlašuje, že rádiové zařízení typu RUT230 je v souladu se směrnicemi: 2014/53/EU
[DK] Danish	Hermed erklærer Teltonika, at radioudstyrstypen RUT230 er i overensstemmelse med direktiverne: 2014/53/EU
[DE] German	Teltonika erklärt hiermit, dass das Funkgerät vom Typ RUT230 den Richtlinien 2014/53/EU entspricht
[EE] Estonian	Käesolevaga deklareerib Teltonika, et raadioseadmete tüüp RUT230 vastab direktiividele: 2014/53/EL
[GR] Greek	Με τον τρόπο αυτό, η Teltonika δηλώνει ότι ο τύπος ραδιοεξοπλισμού RUT230 συμμορφώνεται με τις οδηγίες: 2014/53/EE
[ES] Spanish	Por la presente, Teltonika declara que el equipo de radio tipo RUT230 cumple con las Directivas: 2014/53/UE
[IT] Italian	Con la presente, Teltonika dichiara che l'apparecchiatura radio tipo RUT230 è conforme alle direttive 2014/53/UE
[LV] Latvian	Ar šo Teltonika paziņo, ka radioiekārtas RUT230 tips atbilst direktīvām: 2014/53/ES
[LT] Lithuanian	Teltonika pareiškia, kad radijo ryšio įranga RUT230 atitinka direktyvas: 2014/53/ES
[HU] Hungarian	A Teltonika kijelenti, hogy a RUT230 típusú rádióberendezések megfelelnek a 2014/53/EU irányelveknek
[NL] Dutch	Hierbij verklaart Teltonika dat het RUT230-radioapparatuur voldoet aan de richtlijnen: 2014/53/EU
[PL] Polish	Niniejszym Teltonika oświadcza, że urządzenie radiowe typu RUT230 jest zgodne z Dyrektywami: 2014/53/EU
[PT] Portuguese	Por este meio, a Teltonika declara que o equipamento de rádio tipo RUT230 está em conformidade com as Diretivas: 2014/53/UE
[RO] Romanian	Astfel, Teltonika declară că echipamentul radio RUT230 este în conformitate cu Directivele 2014/53/UE
[SK] Slovak	Tým Teltonika vyhlasuje, že rádiové zariadenie typu RUT230 je v súlade so smernicami: 2014/53/EÚ
[SI] Slovenian	Teltonika izjavlja, da je radijska oprema tipa RUT230 v skladu z direktivami: 2014/53/EU
[FI] Finish	Täten Teltonika vakuuttaa, että radiolaitteiden tyyppi RUT230 noudattaa direktiivejä: 2014/53/EU
[SE] Swedish	Häri förklarar Teltonika att radioutrustningstypen RUT230 överensstämmer med direktiven: 2014/53/EU
[NO] Norwegian	Hermed erklærer Teltonika at radioutstyrtypen RUT230 er i samsvar med direktivene: 2014/53/EU