



Cellular & WiFi Roaming Internet System

Quick Start Guide

Included in your kit



Teltonika RUT360



**Poynting MIMO-3-15
Cable with 4 way SMA (M) screws.**



**Teltonika 12v Power
Cable**



**5m Antenna Extension Cable
SMA (M) / SMA (F)**



240v Mains Power Supply

ANTENNA MOUNTING OPTIONS

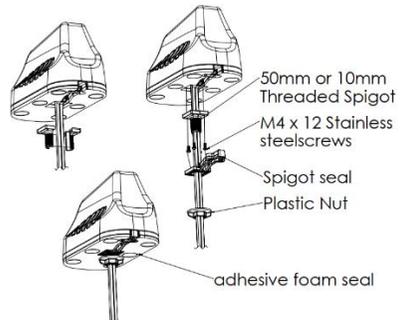
The MIMO-3-12 antenna can be mounted in 3 ways:

(Download the 1:1 drill template from <http://www.poynting.tech/downloads>)

Spigot mounting

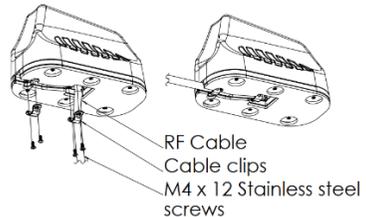
- This is the preferred and most common method on a vessel.

- A hole is drilled directly below the antenna and the cables are routed through the spigot and into the vessel or caravan.



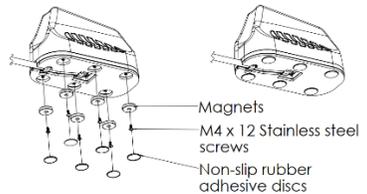
Surface mounting

- The antenna is adhered to the roof with the cables routed out the back of the antenna to an alternate cable entry point.



Magnetic mounting (Optional Extra)

- A temporary method whereby the antenna is magnetically mounted to a metallic surface.



MOUNTING LOCATIONS

Choose a mounting location that is at least 50cm from electrical devices or radio sources such as TV or Radio antennas, Radar, or Satellite dishes. The ideal antenna location is at the highest possible (practical) point on the vessel so that a signal can be received in a 360 degree radius and cables can be run to the antenna and router. Ensure the antenna is installed on a clean and level surface. It is recommended to use Alcohol wipes to remove oil or dirt from the surface area.

Ideally the install location *should* have a conductive metallic surface area with a minimum of 400x400mm to achieve optimal performance. However, this is not absolutely necessary.

Once you selected a location and checked that there are no obstructions for the fastening nut and cables to pass through, use the **1:1 drill template included to mark the mounting location.**

Use masking tape to prevent your marking tool or drill sliding off course and help hold the drill point in place. Masking tape also prevents hot shavings from drilling or sawing sticking to and potentially damaging the surface.

Set the drill to low speed and carefully drill a pilot hole (3-5mm recommended).

Use a 22mm metal hole saw or step drill to drill a hole to the required size.

Note: *The recommended drill hole diameter for MIMO-3-15 is 22mm*

CABLE ROUTING

- Determine the ideal routing plan for your cables.
- Ensure all the (SMA) connections are finger tightened.
- Never pull on the cable connectors.
- Do NOT use any tools to tighten the connectors as this can damage the device or cable.
- Pull only on the cable ensuring the cable is not under excessive tension and NEVER pull cable through cable entry holes at an angle unless you have assistance.

The allowable cable bend radius is 30mm.

Cover the connectors with insulation tape before threading through holes to avoid damage to the pins.

Cable entry holes should be properly sealed with an appropriate weatherproof cable entry cover.

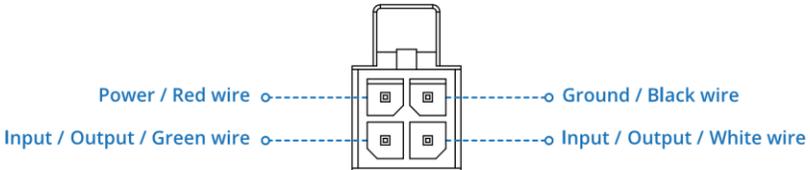
All penetration and screw holes (other than for the spigot) should be well sealed with a silicon based all weatherproof sealant.

ROUTER LOCATION

Ensure the router is installed nearby a power source. The RUT360 Router is low voltage ensuring minimal power consumption. Powered can be provided by either the included 12V fly lead or 240v adapter.

Once you have selected your preferred installation location, adhere the router to the wall using the cable ties or velcro strips provided. Cable ties or a cable tidy bracket (not included) can be used to keep excess cables out of the way. Ensure the router is mounted securely, preferably in a ventilated room or cupboard and will not be subject to vibrations, or excessive heat.

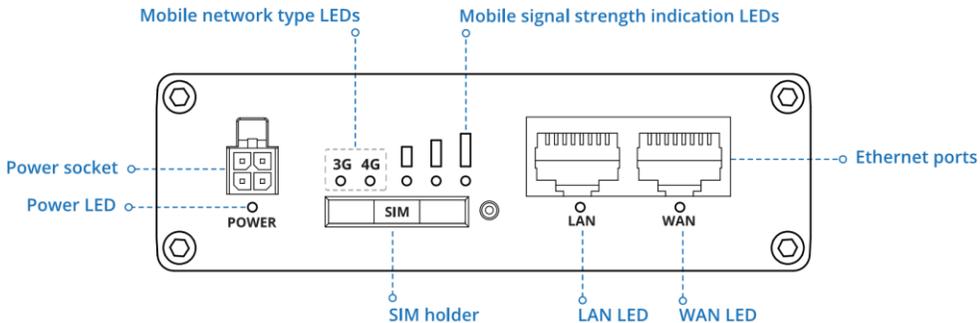
POWER SOCKET PINOUT



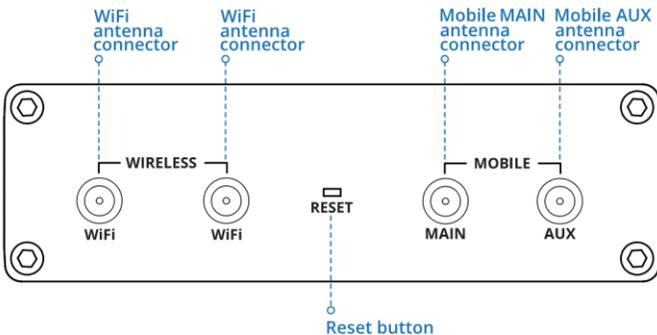
I/O (PIN 3 and 4): Configurable digital Input/Output pins. Open collector output, max output 30 V, 300 mA or Digital input where 0-6 V detected as logic low and 8-30 V - logic high.

TELTONIKA RUT360 ROUTER INSTALLATION

FRONT VIEW



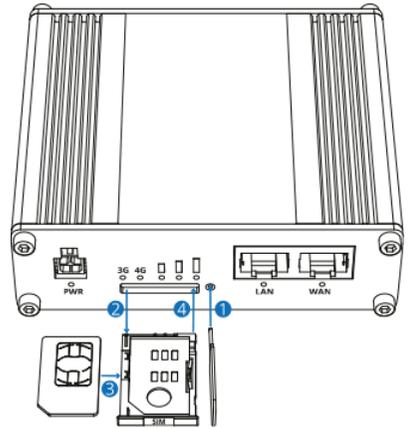
BACK VIEW



RUT360 SIM Card

SIM card insertion

- 1 Push the SIM holder button 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.



Attach the antenna cables to the router. (*Finger tighten only*)

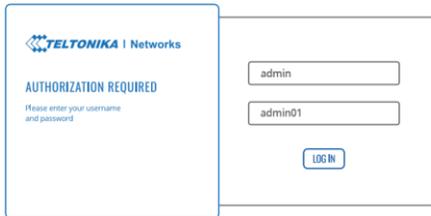
Connect the power adapter to the socket on the front of the device. (see figure 1.4) Then, plug the other end of the adapter into a power outlet.

Connect to the device wirelessly. Or use an Ethernet cable connected directly to the LAN port.

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. Use login information shown in image A when prompted for authentication.
3. After you login, you will be prompted to change your password for security reasons. The new password must contain at least 8 characters, including at least one uppercase letter, one lowercase letter and one digit. This step is mandatory and **you will not be able to interact with the router's WebUI before you change the password.**
4. When you change the router's password, the **Configuration Wizard** will start. The **Configuration Wizard** is a tool used to setup some of the router's main operating parameters.
5. Go to **Overview** page and pay attention to the **Signal Strength** indication (image B). To maximize the cellular performance try adjusting the antennas or changing the location of your device to achieve the best signal conditions.

A.



The screenshot shows the login page of a Teltonika device. On the left, there is a blue box with the Teltonika logo and the text "AUTHORIZATION REQUIRED" and "Please enter your username and password". On the right, there are two input fields: the first contains "admin" and the second contains "admin01". Below the input fields is a blue "LOG IN" button.

B.



The screenshot shows the mobile status page of a device. It displays various mobile network parameters and their current status.

MOBILE		 -50 dBm
Data connection		Connected
State	Registered (home); OPERATOR; 4G (LTE)	
SIM card slot in use		Ready
Bytes received/sent	348.7 KB / 223.5 KB	

SETTING UP YOUR WIFI HOTSPOT

The Teltonika 360 comes with the WiFi Access Point feature enabled. However, it is best to check these settings meet your security and access needs. Here you can select your Hotspot name, security type and **password**. We recommend you select your own easy to identify Hotspot name (ESSID) and password (passphrase).

Login into the Teltonika 360 by typing `http://192.168.1.1` into the URL field of your Internet browser. Enter your **USERNAME & PASSWORD**. Select **NETWORKS - WIRELESS**. Select the **EDIT** tool.

^ WIFI 2.4GHZ

2.4GHz		Device status: Running	Generic MAC80211 802.11bgn	Channel: 11 (2.462 GHz)	Bitrate: - Mbit/s	
RUT_19E2_2G	Interface status: Running	 0%	Mode: AP BSSID: 00:1E:42:27:19:E2 Clients: 0 Encryption: WPA2 PSK (TKIP, CCMP)	 	 off on	

^ INTERFACE CONFIGURATION

GENERAL SETUP

WIRELESS
SECURITY

MAC-FILTER

ADVANCED
SETTINGS

Enable on
off

Mode

ESSID

Network

Hide ESSID on
off

WMM Mode on
off

< BACK

SAVE & APPLY

Your password should be something alpha numeric but also easy to remember.

^ INTERFACE CONFIGURATION

GENERAL SETUP

WIRELESS
SECURITY

MAC-FILTER

ADVANCED
SETTINGS

Encryption

Cipher

Password 

802.11r Fast Transition on
off

< BACK

SAVE & APPLY

Once you are satisfied with your settings Click Save & Apply.

WIFI ROAMING – SCANNING FOR HOTSPOTS

One of the primary features of the Coastal Connect System is to utilise WiFi Hotspots being broadcast by a 3rd party by changing the primary data source from 3G/4G to WIFI. This is ideal when you are located near a WIFI hotspot and you know the **password** to connect. Data usage would now be via the WIFI source rather than the 3G/4G source. This is useful if you'll be near the WIFI source for a while and plan to use a higher amount of data such as streaming content or social media.

One of the unique features of the Teltonika router is that after you have connected to a WIFI source, this source will be remembered and when in range the Teltonika will automatically connect thus saving your 3G/4G data.

****Used in conjunction with the Teltonika WIFI App you can then pick and choose which Hotspot you want to connect to once you are in range simply by selecting it on your mobile (cellular) device.***

To SCAN for WiFi Hotspots type <http://192.168.1.1> into the URL field of your Internet browser. Select **NETWORK ~ WIRELESS** then **SCAN** to find the **WIFI source**.

∨ WIRELESS SCAN RESULTS

SIGNAL	SSID	CHANNEL	MODE	BSSID	ENCRYPTION	
 46 %	TP-Link_63E4_5G	36	Master	B0:4E:26:A3:63:E2	WPA2 PSK (CCMP)	JOIN NETWORK
 76 %	RUT_EE47_5G	36	Master	00:1E:42:27:EE:47	WPA2 PSK (TKIP, CCMP)	JOIN NETWORK
 41 %	Balticum5G-6808	36	Master	74:4D:28:74:EA:D1	mixed WPA/WPA2 PSK (CCMP)	JOIN NETWORK

[< BACK](#) [REPEAT SCAN](#)

Click **JOIN NETWORK** then enter the **WPA passphrase** - **SUBMIT** then **SAVE & APPLY**.

A message will appear stating configuration applied. You can now browse the internet via WIFI.

For a complete guide to the user interface visit <https://wiki.teltonika-networks.com/view/RUT360>

DOWNLOAD & INSTALL THE TELTONIKA WIFI APP

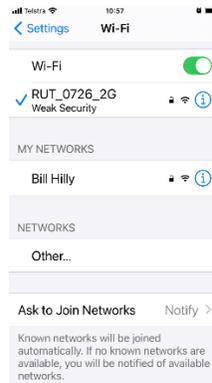


Download the App from the Apple App or Google Play Stores.

Go to your phone (or tablet) settings.

SELECT the Teltonika 360 Hotspot (ESSID).

EG. RUT_0725_2G



Load the **Teletonika WIFI App**. **SELECT** Connection Type **WIFI** (default). Enter the *exact* **USERNAME** and **PASSWORD** you used for the Teltonika 360 Router.

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Connection Type
WIFI ▼

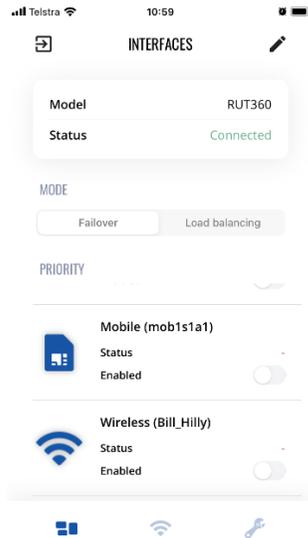
Username
admin

Password 

LOGIN

Next you will be able to **SELECT** your preferred Internet Source (network) from any of the sources that have been **SCANNED** previously.

*When a Hotspot has been scanned by the Teltonika 360 Router it will automatically appear, when in range, on the Teltonika WIFI App.



TECHNICAL INFORMATION

Radio specifications	
RF technologies	3G, 4G, WiFi
Max RF power	24 dBm@WCDMA, 23 dBm@LTE, 20 dBm@WiFi
Bundled accessories specifications*	
Power adapter	Input: 0.45 A@100-240 VAC, Output: 12 VDC, 1 A, 4 pin plug
Mobile antenna	698-960/1710-2690 MHz, 50 Ω , VSWR<3, gain** 4 dBi, omnidirectional, SMA male connector
WiFi antenna	2400-2483.5 MHz, 50 Ω , VSWR<2, gain** 5 dBi, omnidirectional, RP-SMA male connector

*Order code dependent.

**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.

SAFETY INFORMATION

RUT360 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.

[EN] English	Hereby, TELTONIKA NETWORKS declares that this RUT360 is in compliance with the essential requirements and other relevant provisions of Directive 2014/53/EU. This product has been tested and marked (RCM) Compliant in Accordance with Australia Standards & Regulations.
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