# **RUT901 LEDs**

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This chapter provides explanations for **LED** actions on a RUT901 router. The information applies for Quectel modules used in Teltonika devices.



#### **Contents**

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#### **Power LED**

The **power LED** is located on the bottom left corner of the front panel, just under the power connector:



It can perform two different actions:

ACTION	DESCRIPTION
LED turned ON	Router is powered up
LED turned OFF	Router is not powered up

## **Ethernet port LEDs**

The **Ethernet port LEDs** are located on the router's front panel, under each respective Ethernet port:



They represent activity happening on the router's Ethernet ports:

ACTION	DESCRIPTION
LED turned ON	Operating as a 10/100 Mbps connection
LED turned OFF	No link established
LED blinking	Connection established and there is activity on this port (data being transferred)
LEDs light up and turn OFF in sequence from WAN port to LAN1 port	The router is in the bootloader menu state*

\* The **bootloader menu** is a special router state from which certain upgrades can be performed. For more information on the bootloader menu, click here

#### **Connection status LED**

The **connection status LED** is located on the bottom right corner of the front panel, to the left of the signal strength indication LEDs:



The LED displays the router's current connection state and network type among a few other things:

ACTION	DESCRIPTION
Green and red blinking alternatively ever 500 ms	No SIM or bad PIN
Green, red and orange blinking alternatively every 500 ms	Connecting to GSM
Red blinking every 1 sec	Connected 2G, no data session established
Orange blinking every 1 sec	Connected 3G, no data session established
Green blinking every 1 sec	Connected 4G, no data session established
Red lit and blinking rapidly while data is being transferred	Connected 2G with data session
Orange lit and blinking rapidly while data is being transferred	Connected 3G with data session
Green lit and blinking rapidly while data is being transferred	Connected 4G with data session

## **Signal strength LEDs**

The **signal strength LEDs** are located on the bottom right corner of the front panel, to the right of the connection status LED:



Each lit up LED represents a different value of the router's current signal strength in **RSSI**:

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

The signal strength LEDs can also be used as a **time indicator for holding the reset button**. When you press and hold the reset button, if there is a User's default configuration configured on the device, you have to hold it pressed for 6 seconds (by default) to initiate a **User's default configuration reset** and 12 seconds (by default) to initiate a **Factory reset**. Otherwise, it is only necessary to hold the reset button for 6 seconds to trigger a **Factory reset**. If the button was held down longer than 20 seconds (by default) no action will be taken.

While holding the reset button each lit up signal strength LED indicate that a period of two seconds has passed. When all 5 signal strength LEDs are lit up, they represent that 10 (LED number multiplied by 2) seconds have passed since you pressed down on the reset button.

After releasing the button at one of the reset periods, all 5 LEDs will start blinking every 1 second. This signifies that the router **has begun the reset**.