

# RUT850 Network

[Main Page](#) > [RUT Routers](#) > [RUT850](#) > [RUT850 Manual](#) > [RUT850 WebUI](#) > [RUT850 Status section](#) > **RUT850 Network**



## Contents

- [1 Summary](#)
- [2 Mobile](#)
- [3 WAN](#)
- [4 Wireless](#)
- [5 Wireless Information](#)
  - [5.1 Wireless Status](#)
  - [5.2 Associated Stations](#)

## Summary

The **Network** page contains information related to the device's networking features. This chapter is an overview of the Network page in RUT850 devices.

## Mobile

The **Mobile** section displays information about the mobile connection and the SIM card in use. The figure below is an example of the Mobile page:




field name	description
Data connection state	Indicates whether the device has an active mobile data connection
IMEI	The IMEI (International Mobile Equipment Identity) is a unique 15 decimal digit number used to identify cellular modules. GSM network operators use the IMEI to identify devices in their networks
IMSI	The IMSI (international mobile subscriber identity) is a unique 15 decimal digit (or less) number used to identify the user of a cellular network
ICCID	SIM card's ICCID is a unique serial number used to identify the SIM chip
SIM card state	The current SIM card state. Possible values are: <ul style="list-style-type: none"><li>• <b>Ready</b> - SIM card is inserted and ready to be used</li><li>• <b>Inserted</b> - SIM card is inserted</li><li>• <b>Not inserted</b> - SIM card is not inserted</li><li>• <b>Unknown</b> - unable to obtain SIM card state value. Possible communication issue between the the device and the modem</li></ul>
Signal strength	Received signal strength indicator ( <b>RSSI</b> ) measured in dBm. Values closer to 0 indicate a better signal strength
Cell ID	The ID of the cell that the modem is currently connected to
Signal level measurements	Overall signal quality is defined by different measurements for different connection types. Short explanations and recommendations are provided below. Click <a href="#">here</a> for more in-depth information or click on one of the links below: <ul style="list-style-type: none"><li>• <b>4G</b><ul style="list-style-type: none"><li>- <a href="#">RSRP</a> - reference signal received power, measured in dBm. Values closer to 0 indicate better signal strength</li><li>- <a href="#">RSRQ</a> - reference signal received quality, measured in dB. Values closer to 0 indicate a better rate of information transfer</li><li>- <a href="#">SINR</a> - signal-to-interference-plus-noise ratio, measured in dB. Higher values indicate a better rate of information transfer</li></ul></li><li>• <b>3G</b><ul style="list-style-type: none"><li>- <a href="#">EC/IO</a> - downlink carrier-to-interference ratio. Values range from -20 to 0 (closer to 0 indicates better signal quality/cleanliness)</li><li>- <a href="#">RSCP</a> - received signal code power. Values range from -124 to 0 (closer to 0 indicates better signal strength)</li></ul></li><li>• <b>2G</b><ul style="list-style-type: none"><li>- <a href="#">RSSI</a> - received signal strength indicator, measured in dBm. Values closer to 0 indicate better signal strength</li></ul></li></ul>
Operator	Network operator's name

Operator state	Shows whether the network has currently indicated the registration of the mobile device. Possible values are: <ul style="list-style-type: none"> <li>• <b>Unregistered</b> - not registered to a network and the device is not currently searching for a new operator to register to</li> <li>• <b>Registered (home)</b> - registered, home network</li> <li>• <b>Searching</b> - not registered to a network, but the device is currently searching for a new operator to register to</li> <li>• <b>Network denied</b> - registration to network denied by operator</li> <li>• <b>Unknown</b> - operator state is currently unknown</li> <li>• <b>Registered (roaming)</b> - registered to network, roaming conditions</li> </ul>
Connection type	Mobile connection connection type. Possible values are: <ul style="list-style-type: none"> <li>• <b>2G</b>: 2G (GSM), 2G (GPRS), 2G (EDGE)</li> <li>• <b>3G</b>: 3G (WCDMA), 3G (HSDPA), 3G (HSUPA), 3G (HSPA), 3G (HSPA+), 3G (DC-HSPA+), 3G (HSDPA+HSUPA), UMTS</li> <li>• <b>4G</b>: 4G (LTE)</li> <li>• <b>N/A</b> - not possible to determine at the moment</li> </ul>
Connected band	Currently used frequency band. For more information on supported frequency bands, <a href="#">click here</a>
Bytes received	Amount of data received through the mobile interface
Bytes sent	Amount of data sent through the mobile interface
Restart Modem	Reboots the device's cellular module
Restart Connection	Restarts the mobile connection
(Re)register	Registers to the mobile network
Refresh	Refreshes all information fields in the page

## WAN

The **WAN** section displays information about the Main and Backup WAN connections. The figure below is an example of the Mobile page:



Field	Description
Interface	WAN type. Possible values are: <ul style="list-style-type: none"> <li>• Mobile</li> <li>• Wired</li> <li>• Wireless</li> </ul>
Type	<a href="#">Connection type</a> or <a href="#">protocol</a> . The value displayed in this field is dependent on used WAN type. Possible values are: <ul style="list-style-type: none"> <li>• <b>Mobile WAN</b> <ul style="list-style-type: none"> <li>- <b>QMI</b> - Qualcomm MSM Interface, a proprietary protocol used between Qualcomm cellular processors and their software stacks</li> <li>- <b>PPP</b> - Point-to-Point Protocol; uses a dialling number to establish a data connection</li> </ul> </li> <li>• <b>WiFi WAN</b> <ul style="list-style-type: none"> <li>- <b>DHCP</b> - Dynamic Host Configuration Protocol; the WAN network interface controller acts as a DHCP client, meaning that it receives a dynamically assigned IP address and other network configuration parameters</li> <li>- <b>Static</b> - WAN network interface controller configuration parameters are set manually (used when the WAN gateway is not a DHCP server)</li> </ul> </li> </ul>
IP address	Router's WAN IP address
WAN MAC	MAC address of the WAN network interface controller (WiFi radio). This field is only visible if main WAN is set to WiFi
Netmask	A <a href="#">netmask</a> is used to define how "large" a network is by specifying which part of the IP address denotes the network and which part denotes the device
Gateway	Gateway of the default route - an IP address through which the router reaches the Internet
DNS	DNS servers used by the main WAN connection
Connected	Currently used WAN connection uptime
Backup WAN Status	Displays the router's current WAN failover status
Refresh	Refreshes all information fields in the page

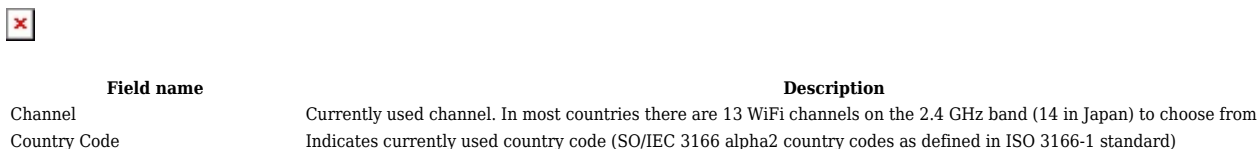
WAN settings can be customized via the **Network** → [WAN](#) page.

## Wireless

The **Wireless** section displays information about wireless connections and associated WiFi stations.

### Wireless Information

The figure below is an example of the **Wireless Information** section:




Field name	Description
Channel	Currently used channel. In most countries there are 13 WiFi channels on the 2.4 GHz band (14 in Japan) to choose from
Country Code	Indicates currently used country code (SO/IEC 3166 alpha2 country codes as defined in ISO 3166-1 standard)

## Wireless Status

---

The **Wireless Status** section contains information about Wireless Access Points. The figure below is an example of the **Wireless Status** section:




Field name	Description
SSID	The broadcasted SSID (Service Set Identifier) of the wireless network
Mode	Connection mode. Can either be Access Point (AP) or Client. In AP mode others can connect to this router's wireless connection. In client mode router connects to other wireless networks
Encryption	The type of WiFi encryption used
Wireless MAC	The MAC (Media Access Control) address of the access point radio
Signal Quality	The signal quality between router's radio and some other device that is connected to the router
Bit rate	The maximum possible physical throughput that the router's radio can handle. Bit rate will be shared between router and other possible devices which connect to local Access Point (AP)

## Associated Stations

---

The **Associated Stations** section contains information about devices that are connected to Wireless Access Point. The figure below is an example of the **Associated Stations** section:



Field name	Description
MAC address	Associated station's MAC (Media Access Control) address
Device Name	Currently connected device name
Signal	Received Signal Strength Indicator (RSSI). Signal's strength measured in dBm
RX rate	The rate at which packets are received from associated station
TX rate	The rate at which packets are sent to associated station