

Configuration Manual

Please read carefully before starting. Also read the product [safety information](#).

First start

After unpacking, the gateway is ready to use, but requires configuration to adapt to the required functions.

Power supply

First, connect the power supply according to the [power supply](#) information.

Opening inbuilt website

Through the WAN interface

To access the built-in website, connect the gateway by WAN to the local network and enter the DHCP assigned IP address in the address window of the browser. Please note that it may take some time from powering on to booting up the system. When the LEDs next to the RJ45 socket start flashing, after about 10 seconds the built-in website becomes available.

user name: **root**

password: **root**

Through the LAN interface

Connect the ETH2 directly to the computer and enter in the address window of the browser default IP of Gateway.

IP: **192.168.1.1**

user name: **root**

password: **root**

Through the WiFi interface

By default, the gateway creates its own network with default ESSID "AG-702". The network is secured with default password "atreyo12".

Connect to this network and enter the IP in the address bar of your browser.

IP: **192.168.1.1**

user name: **root**

password: **root**



After logging in, you are automatically taken to the dashboard page.

Internet

IPv4 Internet	IPv6 Internet
Connected: ON	Connected: OFF
Uptime: 0h 10m 27s	Uptime: -
Protocol: DHCP client	Protocol: -
IPv4: 192.168.10.149	IPv6 prefix: -
GatewayV4: 192.168.10.1	GatewayV6: -
DNSv4: 192.168.10.1	DNSv6: -

System

Uptime: 0h 12m 10s
Local Time: 2023-12-22 11:21:20
Kernel Version: 5.15.71
Model: Atreyo AG-702
Architecture: MediaTek MT7628AN ver:1 eco:2
Firmware Version: Atreyo-OpenWrt 1.01 221019

DHCP Devices

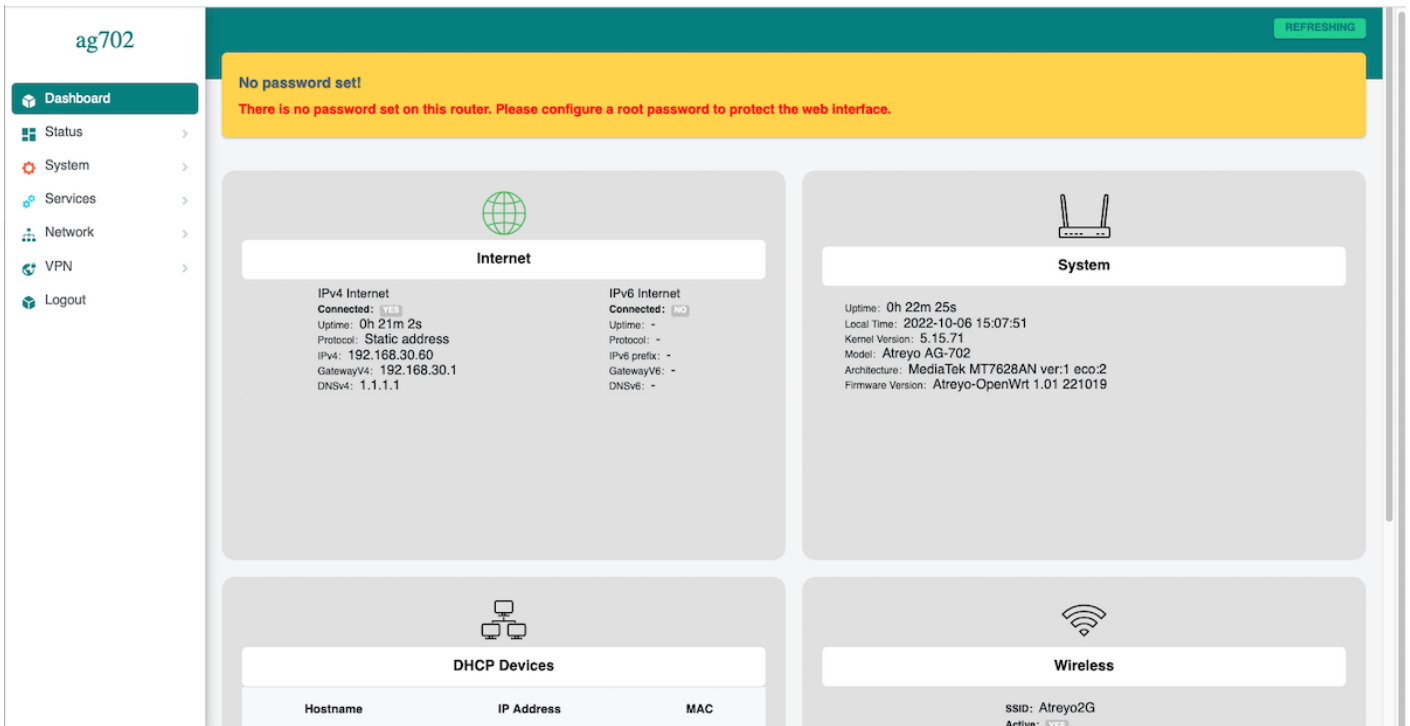
Hostname	IP Address	MAC
RedmiNote5Pro-RedmiN	192.168.1.212	80:AD:16:C4:99:C6

Wireless

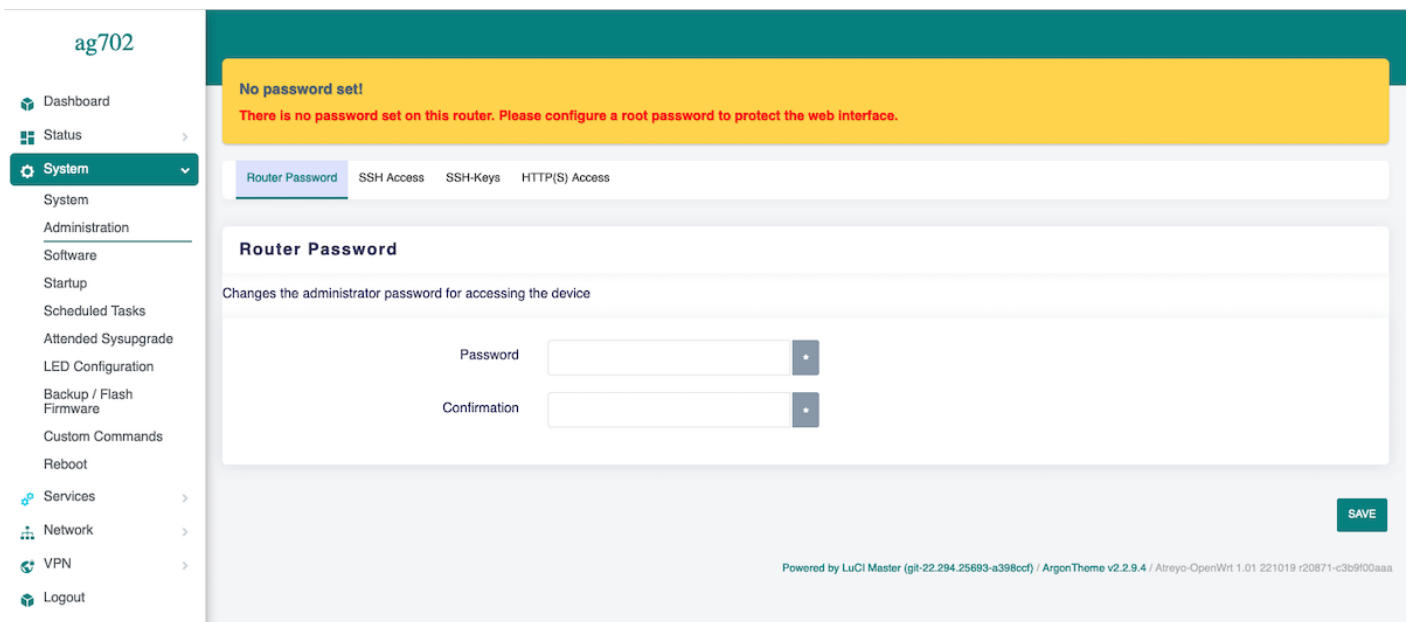
SSID: AG-702
Active: ON
Channel: 1 (2.412 GHz)
Bitrate: 26 Mbit/s
BSSID: 32:54:52:94:6B:E9
WPA2 PSK
Encryption: (CCMP)
Devices Connected: 1

Password setting

At the top there is a message that no password has been set.



Set a password on the **system>administration** page:



To maintain security, it is recommended to use long and complex passwords.

Cellular modem

Modem

The Gateway in its basic configuration is equipped with an LTE modem that also supports GPRS and SMS functions. Different modems were used depending on the model variant. Here is a table of models.

SIM card

The Gateway supports two nano SIM cards, both 1.8V and 3V. The card connector is tray type. When installing the SIM card, pay attention to the correct insertion of the card. The used SIM card tray is designed so that the card sticks to the tray. This make easily insert the SIM regardless of the position of the Gateway

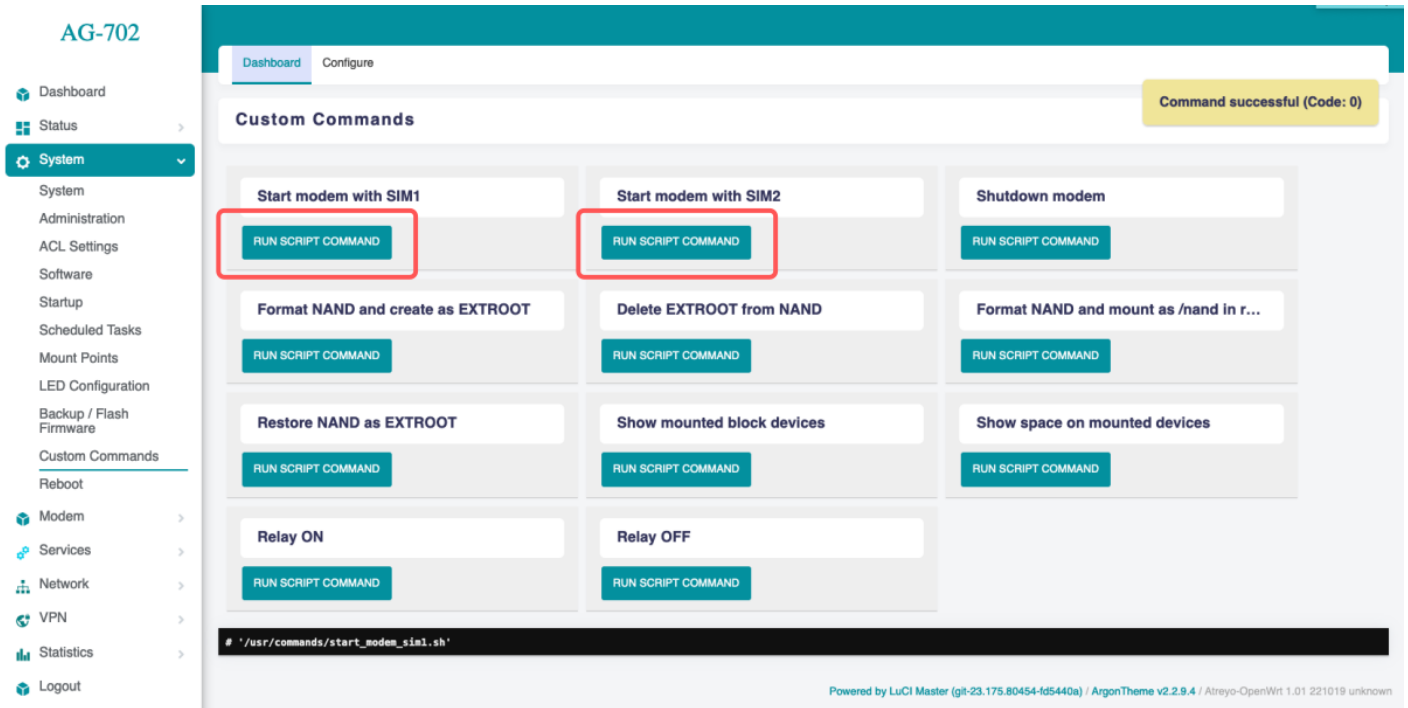
Using Cellular Network

To activate the LTE modem, go to **Network > Interfaces** and select the lte tab there.

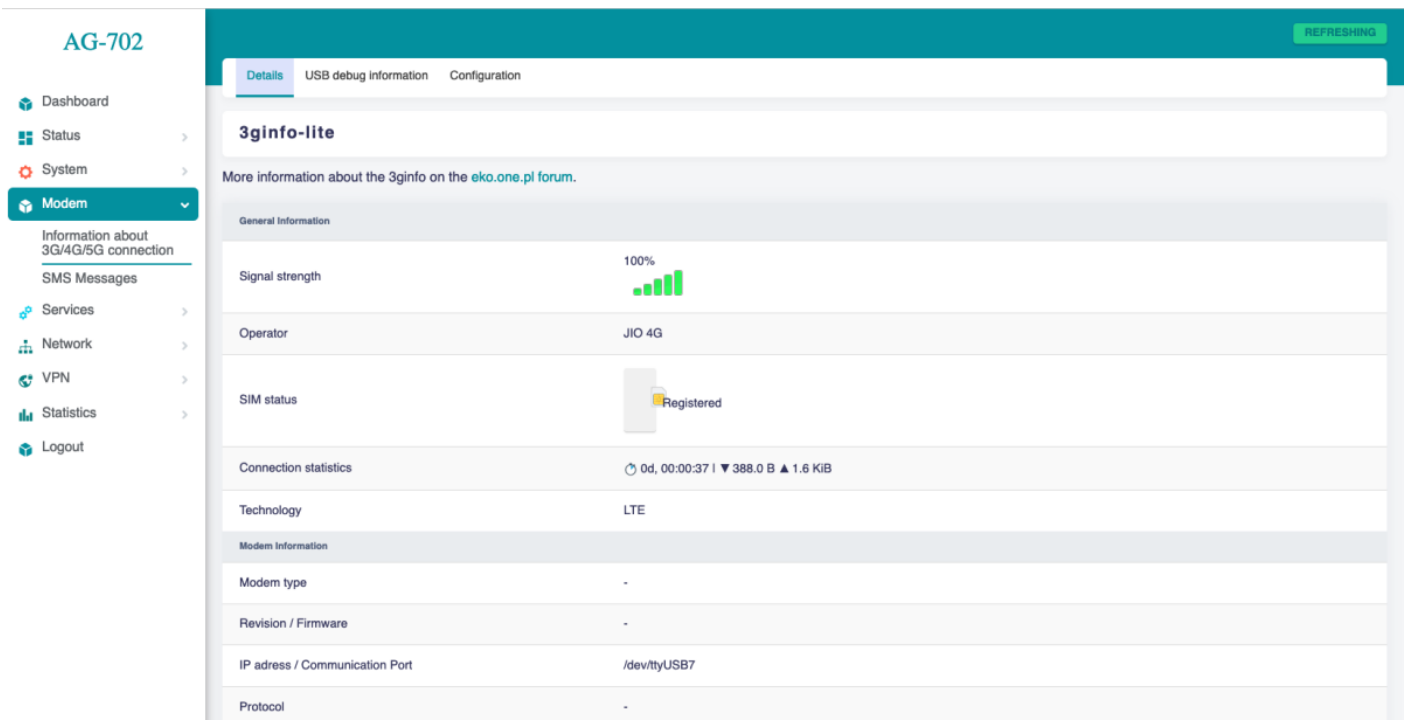
Mostly the network operator requires you to enter the APN, sometimes it also requires a username and password. Enter the required data and save.

The screenshot shows the configuration page for the LTE interface. The 'General Settings' tab is active. The 'Status' section shows 'Device: 3g-lte', 'RX: 0 B (0 Pkts.)', 'TX: 0 B (0 Pkts.)', and 'Error: Network device is not present'. The 'Protocol' is set to 'UMTS/GPRS/EV-DO'. 'Bring up on boot' is checked. The 'Modem device' is '/dev/ttyUSB2'. The 'Service Type' is 'LTE', which is highlighted by a red box. The 'APN' is 'INTERNET', also highlighted by the red box. The 'PIN' field is empty. The 'PAP/CHAP username' and 'PAP/CHAP password' fields are empty. The 'Dial number' is '*99***1#'. At the bottom right, there are 'DISMISS' and 'SAVE' buttons.

Then go to **System > Custom Commands** and click on Start modem with SIM1/Start modem with SIM2. Depending on which SIM card you want to start.



The modem will start up and connect to the Internet. To check if it is working properly and what the signal is, go to Modem > Information about 3G/4G/5G connection. When the modem starts up, the LEDs showing the signal strength will also light up. This makes it easy to see the signal strength in a particular location.



Cellular modem ON on start

To make the gateway automatically connect to the Internet after startup, you need to add a modem startup in the System > Startup section, add a line before line 'exit 0'. **`/usr/commands/start_modem_sim1.sh`** or **`/usr/commands/start_modem_sim2.sh`**. Then save

the changes. After each reboot, the gateway will automatically start the modem with the selected SIM card.

SMS

To test the SMS operation, the gateway has an SMS interface installed. Under **Modem > SMS Messages**. There you can check sent and received SMS. Be sure to enter the phone number together with the country prefix, but without the + sign. The maximum number of characters is 160. The system does not support alphabets such as devanagari. The maximum number of messages in the inbox is 20.

The screenshot shows the AG-702 web interface. On the left is a sidebar menu with options: Dashboard, Status, System, Modem (selected), Information about 3G/4G/5G connection, SMS Messages, Services, Network, VPN, Statistics, and Logout. The main content area is titled 'SMS Messages' and has tabs for 'Received Messages', 'Send Messages', 'USSD Codes', 'AT Commands', and 'Configuration'. Below the tabs, there is a sub-header 'SMS Messages' and a note: 'Web UI for receiving messages via sms_tool. More information about the sms-tool on the eko.one.pl forum.' A section titled 'Received Messages' shows 'Messages store in: SIM card' and 'Messages (Inbox / Maximum): 2 / 10 (20%)'. A table lists two received messages:

	From	Received	Message
<input type="checkbox"/>	91	2023-12-22 12:07	Yes. System working ok.
<input type="checkbox"/>	91	2023-12-22 12:06	Test reply

At the bottom right of the message list are buttons for 'REFRESH SMS' and 'DELETE MESSAGE(S)'.

For send SMS go to **Send Message** tab.

The screenshot shows the AG-702 web interface with the 'Send Messages' tab selected. The sidebar menu is the same as in the previous screenshot. The main content area is titled 'SMS Messages' and has tabs for 'Received Messages', 'Send Messages', 'USSD Codes', 'AT Commands', and 'Configuration'. Below the tabs, there is a sub-header 'SMS Messages' and a note: 'Web UI for sending messages via sms_tool. More information about the sms-tool on the eko.one.pl forum.' A section titled 'Send Messages' contains the following fields:

- 'User Phonebook:' with a dropdown menu.
- 'Send to:' with a text input field containing '91'.
- 'Message text:' with a text area containing 'Testing SMS system.' and a character count of '141'.
- 'Status:' with an empty text input field.

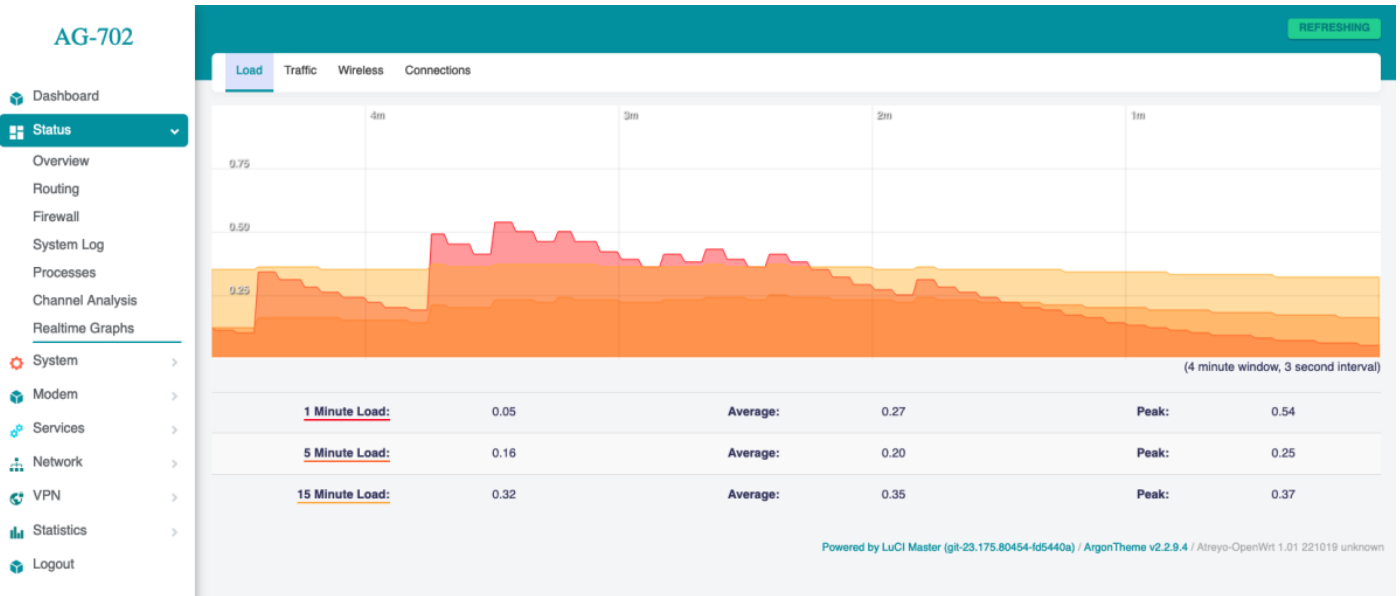
A 'SEND MESSAGE' button is located at the bottom right of the form.

System statistics

The gateway has a built-in real-time statistics system under Status > Realtime Graphs and accurate statistics with selectable time range under Statistics > Graph. You can check CPU load,

memory usage, network load, etc.

Realtime Load



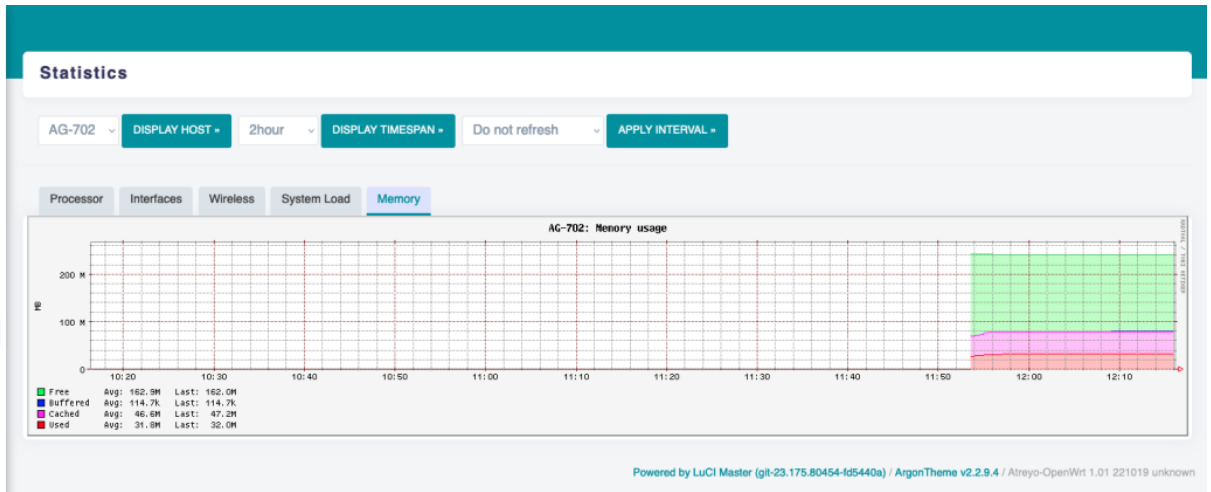
Statistics Interfaces



Statistics Memory

AG-702

- Dashboard
- Status
- System
- Modem
- Services
- Network
- VPN
- Statistics
- Graphs
- Setup
- Logout



Statistics Processor

AG-702

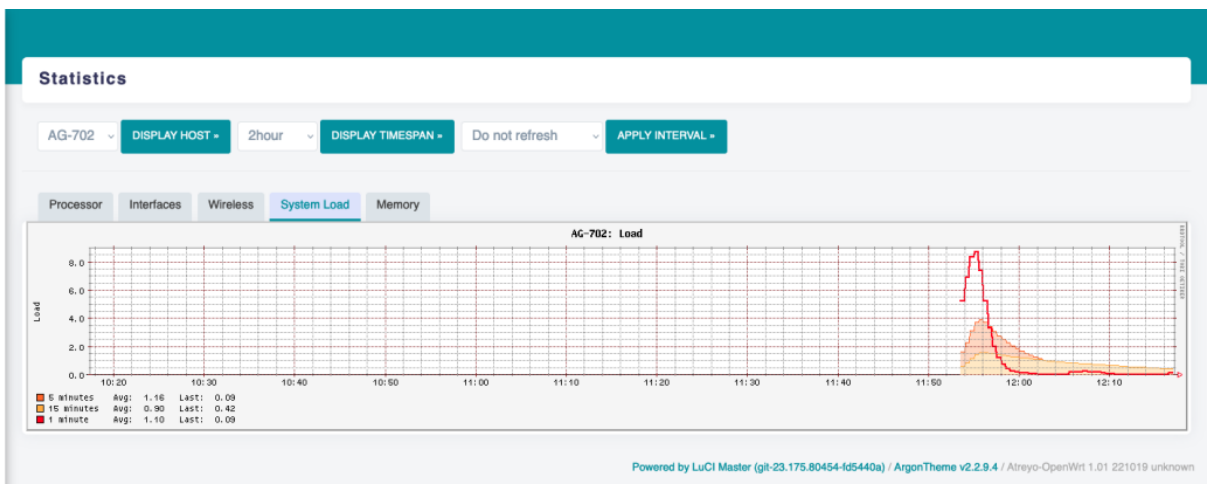
- Dashboard
- Status
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- Statistics
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Statistics System Load

AG-702

- Dashboard
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Modbus

To restart the gateway without disconnecting the power supply, press and hold the "Reset/Default" button for less than 5 seconds. During the restart, 4 LED indicators will light up for 1 second (IN-1, IN-2, RS485, RS232)

Do not hold the button for more than 5 seconds, as it will trigger the gateway to restore default settings.

Revision #28

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