

M2M Router® - Quick Installation Guide

INTERFACES

Power supply - 9-24V DC, 4-pins Microfit connector

LED1/LED2/LED3 – Status LEDs, programmable

SIM - Push insert SIM card slot

mini-USB - USB connection (Ethernet bridge, for configuration with a PC)

micro-SD - micro-SD memory card slot (max. 32 GByte)

Reset - Reset button (recovery option to factory default configuration)

Ethernet - 10/100Mbit, RJ45 port

ANTENNA – in case of 4G there are 2pcs LTE antenna connector (SMA-M, 50 Ohm), in case of Cat.M/Cat.NB 1pc LTE antenna connector (SMA-M, 50 Ohm)



CURRENT & CONSUMPTION / OPERATING CONDITIONS

- 12V DC, 1A power adapter (9-24VDC), microfit 4-pins power connector
- Average current: 200mA, 12V DC / Consumption: 2.4W, 12V DC
- SIM slot: mini SIM (type 2FF, push / insert)
- Operating / storage temperature: between -40°C and + 80°C, 0-95% rel. humidity
- Size: 90x80x35 mm, Weight: 102gr. / Port with expander: 106x80x35 mm, Weight: 110 gr.
- IP51 shielded industrial aluminum housing, with adapter for C- or DIN-rail mounting, 3 status LEDs

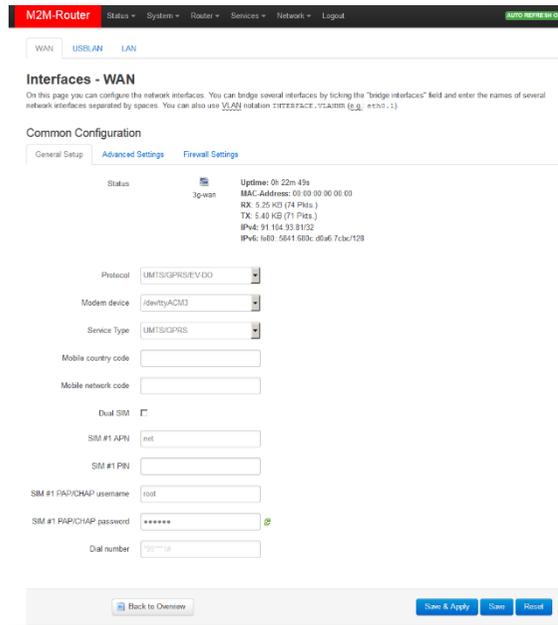
INSTALLATION STEPS

- Mount antenna(s) onto the SMA antenna connector(s).
- Insert a SIM card with a data packet into the SIM card holder with the chip facing up and the bevelled corner facing the router, and slide the card in it.
- Connect a UTP cable to the Ethernet labeled port of the router. Connect the other side of the cable to the Ethernet port of your PC.
- On the router, the DHCP service to the Ethernet interface is turned off by default. Therefore, for the connected PC, you must manually configure an IP address at first. Add the IP address e.g. 192.168.127.10 for the Ethernet interface of your computer to be able to connect to the router.
- Then connect the 12V DC power adapter cable to the interface labeled POWER and then plug the adapter to the 230V power source – when the router will be started.
- The device has a pre-installed system. The current status of the device is indicated by its LED lights.

Boot sequence

- If you have powered on the router, the LED1 will be active, indicating that the system is loading (boot in progress).
- Starting the system takes approx. 1-2 minutes to load the system to operate and while you can log in to the web configuration interface.
- The availability of the mobile network is indicated by the flashing of the LED2. When the module has successfully registered the SIM to the network, the LED2 will be lighting continuously.
- If you receive any error or an unusual LED blinking, please check the *Installation Guide*.

- Connect to the router's local web user interface (LuCI) through the Ethernet interface's default IP address:
<https://192.168.127.1:8888> in Mozilla Firefox browser.
(The microUSB-USB cable connection's default address is: <https://192.168.10.1:8888>)
- Enable the access in the browser by the **Advanced** button, then click to the **Confirm Security Exception** button on the pop-up window.
- Enter the following login data to the router's OpenWrt website:
Username: root Password: wmrpwd
- Then press the **Login** button to log into the OpenWrt system.
- Afterall, on the main page (**Status overview** menu), check the status of the device. At the **Network** part, you will find the **Modem Type**, the **Modem ID (IMEI)**, the **SIM ID (ICC)**, the **Modem RSSI** and the **Modem SQ**, and the SIM card login information (AT + COPS?), **IPv4 WAN Status** (connection type, IP).
- At the **Network / Interfaces** menu, setup the cellular network settings. Open the **WAN** interface, **General Setup** tab.
- Then Configure the wireless Internet settings to connect to the 2G / 3G / LTE 4G / LTE Cat.M / NB-IoT network (depending on the module type and the available cellular network) of the WAN interface.
- Configure the **SIM #1 APN** by the SIM card data. If the SIM requires username and password to the APN connection, please fill the **SIM #1 PAP/CHAP username** and **SIM #1 PAP/CHAP password** fields as well.
- Click to the **Save & Apply** to save the settings. Then the router try to connect to the cellular network in the background which will be also signed by the **LED2** and **LED3**.
- Change the router's login password before accessing the public Internet! For that, open the **System / Administration** menu. Add the new **Password** and **Confirm password** fields and **Save** your settings.
Note that next time you have to use these data for the login!



FURTHER SETTINGS

Ethernet settings

- Configure the LAN settings in the **Network / Interface** menu, on the **General Setup** tab.
Push the **Edit** button next to the **LAN** interface entry.
- Change the default 192.168.127.1 address and add the new **IPv4 address** with the corresponding **IPv4 netmask** (subnet mask). There
- Save the settings by the **Save & Apply** button.

DHCP, DNS settings

- In the **Network / DHCP and DNS** menu, under the **General Settings** tab, you can configure the **DNS and DHCP settings** – by also enabling the DHCP service.
- At the **DHCP**, the **Start** field means the starting IP address and you can **Limit** how many IP addresses could be assigned.
- If you want to enable the DHCP service, just deselect **"Disable DHCP for this interface"**.
- You can also add devices by the Add button there, at the **Static Leases** part (by defining their **Hostname** and **MAC-Address** and **IPv4-Address**).
- Save the settings by the **Save & Apply** button.

SAVE THE SETTINGS

- Open the **System** menu, **Backup / Flash Firmware** menu item.
- At the **Backup / Restore** part, check **Download backup** and push the **Generate Archive** button to save your settings.

FIRMWARE UPDATE

Before performing a firmware update, ask our Sales for getting the proper firmware version!

IMPORTANT NOTES

- In case of a performing a restart, all the three LEDs will be flashing by red for 1 second, then they will be blank for a few seconds.
- Then the system will be loaded and the router will be available via SSH connection on its IP address - e.g. with *putty* or another terminal utility you can access the device on the **192.168.10.1:22** address (**Login: root Password: wmrpwd**)
- If the router does not responds or if it was misconfigured: press the **Reset** labeled button with a thin object on the front panel for at least 10 seconds. Then the device will restart with the factory settings. After a few minutes it will be available on its default address. Configure the router on its web interface.
- The device enclosure can be mounted on a C-rail / DIN-standard rack (adapter available as an option).

If you cannot reach the device via Ethernet interface - connection via USB

- Download the micro-USB driver and install before using the cable: https://www.m2mserver.com/m2m-downloads/USB_Ethernet_RNDIS_DRIVER.zip
- Unzip the downloaded file to a directory and install it.
- Establish the USB connection between the PC and the router with a micro-USB cable.
- Power on the router.
- Setup the IP address of the USB-Ethernet interface on the PC for the "USB Ethernet / RNDIS Gadget" network connection (in Microsoft Windows® check the **Ethernet** settings at the **Control Panel / Network / Network Adapter / Adapter Settings**.
(for USB settings configure this in the **Network Connections, USB Ethernet / RNDIS Gadget interface**)
- To connect to the router's local website on Ethernet or USB and enable access to the router's IP address in your computer's browser (Ethernet IP address: 192.168.127.x, USB IP address: 192.168.10.x (x = 2-255), Subnet Mask: 255.255.255.0) - set it in Control Panel / Network and Sharing Center / Change adapter settings / Under Network Connections, to the **USB Ethernet / RNDIS Gadget interface**.)
- Use the default website's URL to login as we described before.

DOCUMENTATION & SUPPORT

The documentations can be found on the product website: <https://www.m2mserver.com/en/product/m2m-router/>

In case of product support request, ask our support at the lotsupport@wmsystems.hu email address or check our support website for the further contact opportunities please: <https://www.m2mserver.com/en/support/>

This product is marked with the CE symbol according to the European regulations.



The crossed out wheeled bin symbol means that the product at the end of its life cycle should be disposed of with general household waste within the European Union. Only discard electrical/electronic items in separate collection schemes, which cater for the recovery and recycling of materials contained within. This refers not only to the product, but also to all other accessories marked with the same symbol.

