

ML-R412-WG User manual

Wireless mobile Internet Access Device via LTE
With WiFi



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Purpose

This manual includes how to use and configure the ML-R412-WG (Model name).

Revision History

This user manual is based on firmware version V1.24.12

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1. INTRODUCTION

1.1. OVERVIEW

ML-R412-WG is a wireless mobile internet access device with 2 10/100Ethernet interfaces, and 802.11b/g/n to perform wireless internet service between PC and wireless WAN via LTE Cellular station.

ML-R412-WG incorporates a LTE modem, MCU, system memories, 2 10/100 Ethernet, 802.11 b/g/n, Embedded OS, various network protocols for wireless internet.

ML-R412-WG has some special functions on wireless mobile internet like always on-line, demands on-line etc. It also provides IP flittering, Mac flittering for tight security application.

ML-R412-WG can be remote update anytime it is needed. Keep alive function to ensure router is on-line all the time.

ML-R412-WG is the best choice for industrial application.

1.2. MAIN FEATURE

- Wireless mobile internet access device
- Integrated wireless mobile LTE
- 2 10/100Mbps Ethernet interfaces
- Adopt Embedded Operating System
- User friendly Web-based Management Tool
- Status LED indicates of the device status
- An external power switch
- Support various Network Protocol
- DHCP Server
- NAT(Network Address Translation)
- 802.11 b/g/n 300Mbps Wifi with WPS function
- IP filtering, Mac filtering to ensure tight security access.
- Keep Alive function to make sure system are on-line all the time.

2. BRIEF INFORMATION

2.1. APPERANCE

Below are the appearance and the each part of name of ML-R412-WG.

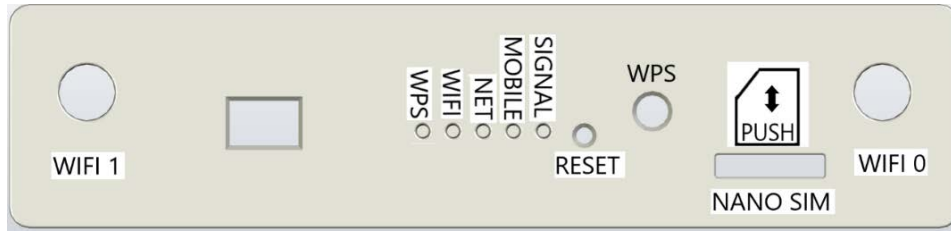


Figure 1: Front view



Figure 2: Rear view

2.2. DESCRIPTION OF EACH PART



2.2.1. POWER

Must connect the given power adapter DC 12V/2A on this jack.

2.2.2. WiFi ANT1, WiFi ANT0

There are 2 WiFi antennas. ANT1 and ANT0. Please tight in 2 WiFi antennas.

2.2.3. Reset S/W

It is software reset for ML-R412-WG.

2.2.4. LAN

User can connect ML-R412-WG with Host PC, HUB, Router etc, via 10/100 LAN port. The RJ-45 connector (LAN port) has Link-LED. Below the table shows the each status of LAN connection.

LED	State	Description
Green	ON	Indicates LAN connected.
	BLINK	Indicates data are existed via LAN.
	OFF	Indicates LAN disconnected.

[Table 1: LED Description on LAN port]

WAN: It is for WAN port such as ADSL.

LAN: It is LAN port.

2.2.5. Console

This port is hidden inside of unit to see the diagnostic data via this console port. Normally this port is for debugging. It is for manufacturer use only. The console port is using special TTL interface cable with setting as 57600bps 8 none.

2.2.6. Main Antenna Connector

This connector should be connected to 3G or 4G antenna.

2.2.7. Main ANT

This is for 3G/4G antenna to do both transmit & receive.

2.2.8. DIV ANT

This is for receive diversity antenna.

2.2.9. 3G/4G module

This Router supports 3G & 4G module.

2.2.10. 8-State LED

ML-R412-WG has 8-State LED for indicating the current status.

** The LED position are from left to right on top view*

LED	Display	Description
POWER	ON	Indicate the main power on
	OFF	Indicate the main power off
SIGNAL	flash	4G antenna signal is working
WiFi	ON	When WiFi function is enabled
	OFF	When WiFi function is disabled
MOBILE	ON	When 3G/4G modem is on
	OFF	When 3G/4G modem is off
WAN	ON	When there are data on WAN network
	OFF	When there are no data on WAN network
NET	ON	When there are data on LAN network
	OFF	When there are no data on LAN network
LAN	ON	When there are data on 10/100 LAN
	OFF	When there are no data on 10/100 LAN
WPS	ON	When WPS button is press

[Table 2: 8-State LED indication]

WPS & RESET button:

1. Press RESET and then release, LTE345 reset, and the settings remain unchanged.
2. WPS Press for 3~10 seconds, and the LTE345 will reset back to the factory default value
If it is less than 3 seconds or more than 10 seconds, the WPS connection will be activated.

Press time	Motion
0 ~2s	If WPS is enabled, make a WPS wireless connection
3 ~10s	Reset back to the factory default)
>10 s	If WPS is enabled, make a WPS wireless connection

2.2.11. Nano-SIM Socket

It has 1 Nano-SIM sockets. Please follow direction to insert SIM card.



Push-in to insert and push-out to remove.

2.3. PACKAGES

2.3.1. ML-R412-WG

2.3.2. UTP Cable (Direct)



2.3.3. DC 12V/2A Adapter



2.3.4. WiFi antenna: 2pcs

2.3.5. 4G antenna

2.3.6. SOFTWARE COMPOSITION.

Web-based configuration page

ML-R412-WG has a web-based configuration page that user can set the options of ML-R412-WG for user's purpose. Firmware

Firmware is the program operating the ML-R412-WG.

Firmware: Version ML-R412-WG-1.24.12

** This version name will be changed whenever this is updated.*

2.4. BEFORE USAGE

2.4.1. Installation

- ML-R412-WG is a wireless mobile internet access device with PC or other LAN devices via LTE mobile station. Please follow the steps below when you install this device.
- Insert Nano-SIM card.
- Plug in WIFI antenna on 2 places.
- Connect the proper 3G/4G antenna.
- Connect the LAN cable between PC and LAN port of this device.
- Connect the power adapter.

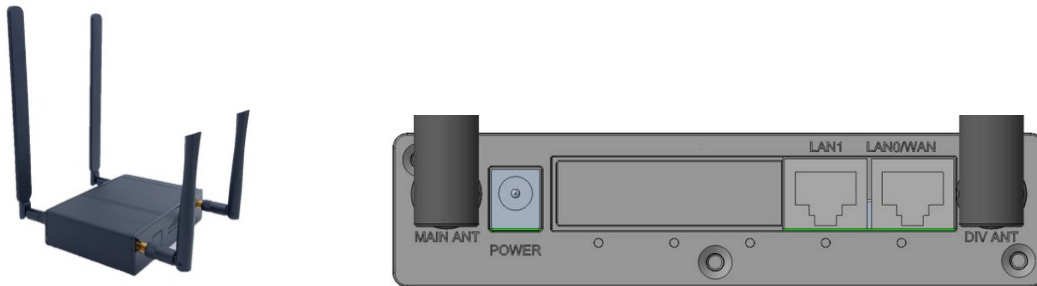


Figure 3: Installation of ML-R412-WG

Checking device

ML-R412-WG is set by PPP (NAT Router) and Always on-line mode in the first time.

When you get this device in the first time, please check whether this device is correct or not.

Please follow below steps to check this device seeing the 8-Status LED's operation.

1. Install ML-R412-WG as following the "3.1 Installation."

** Be sure the LAN cable must be connected between PC and ML-R412-WG.*

2. When you plug in power, the LED named "Power" is on.

3. The LED named "Mobile" is on.

** You can see this LED on in 20 seconds. When this LED is not on, contact us at our office.*

4. The LED named "LAN" is on.

2.5. UNDERSTANDING BASIC OPERATION

2.5.1. Mobile Gateway mode

On Mobile Gateway mode, ML-R412-WG has an IP from ISP (Internet Service Provider) then ML-R412-WG keeps the IP and shares the IP with connected Host PC via NAT.

The main feature is that ML-R412-WG has the mobile IP from ISP and your PC connected with ML-R412-WG has a private IP from DHCP of ML-R412-WG.

3. SETTING YOUR PC ENVIRONMENT

3.1. SETTING HOST PC

ML-R412-WG is set by Modem router mode/Always On-line at first time. So just connect an LAN cable (Direct) between your PC and LAN port of ML-R412-WG. Set the network environment of your PC as automatically.

3.1.1. Setting Host PC's **Windows 11** network environment

Right click on **Start**, select **Network connection**. Open **Ethernet**

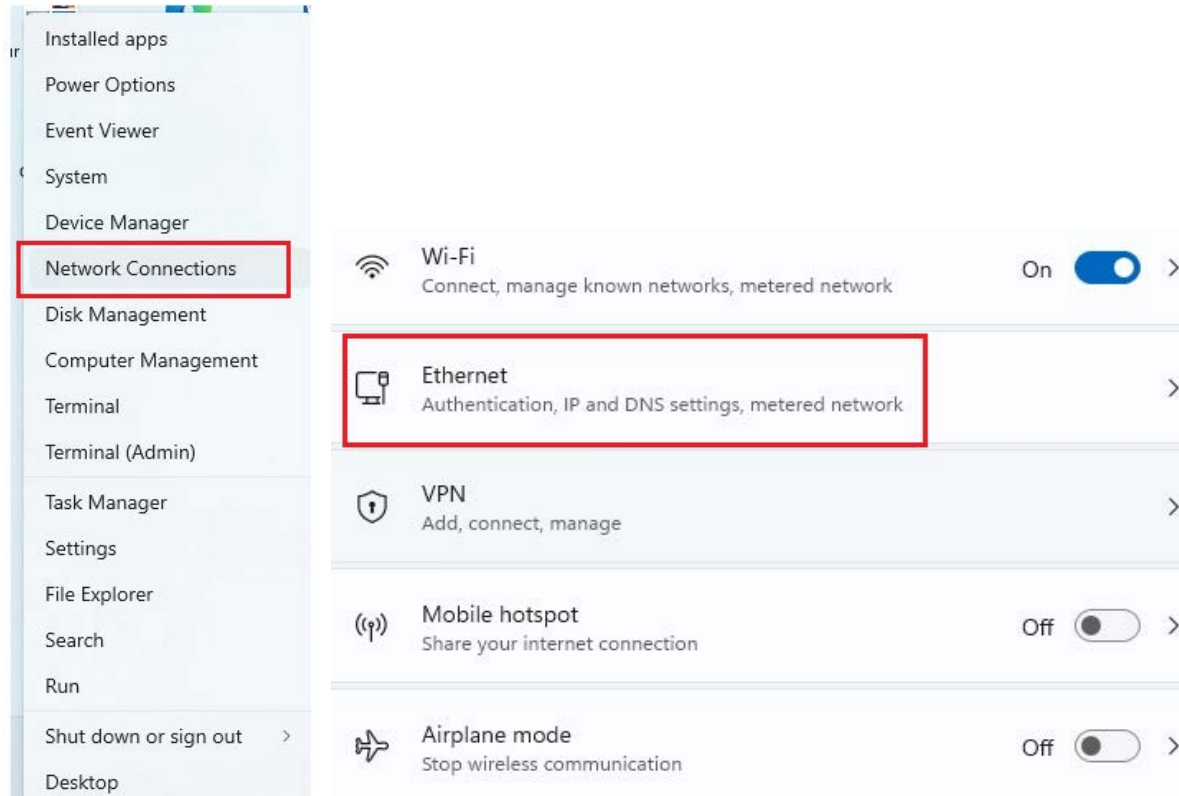


Figure 4: Right click on **Start**, select **Network connection**. Open **Ethernet**

Make sure IP assignment is “Automatic (DHCP)”. This means PC’s IP address is assigned by router.

If not, please click on **Edit**, then choose “**Automatic (DHCP)**” and **Save**. PC will start communicating with router.

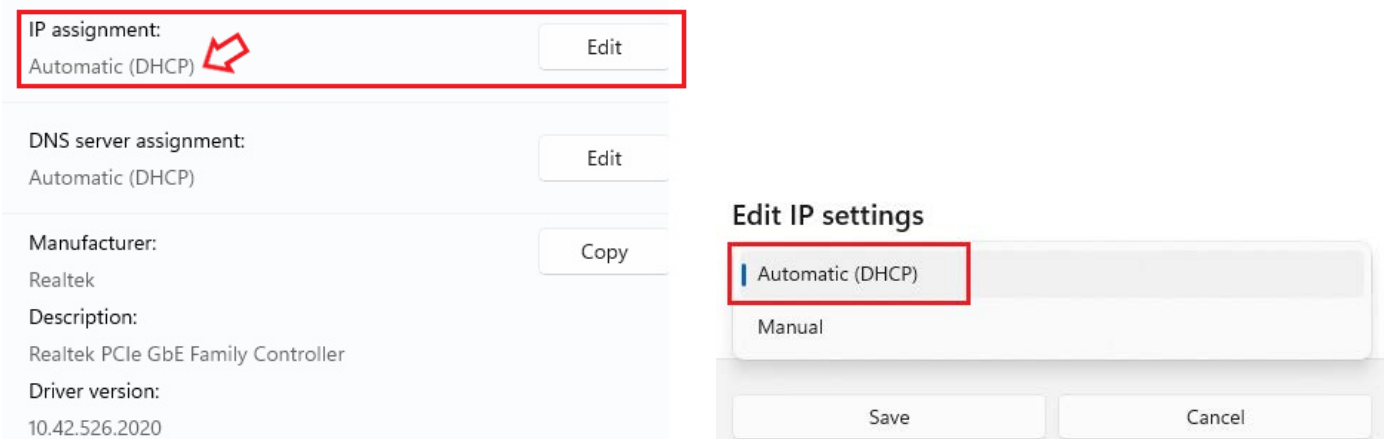


Figure 5: please click on **Edit**, then choose “**Automatic (DHCP)**” and **Save**

- 3.1.2. For old Windows PC, please connect between PC and ML-R412-WG, click “My Network Places” and the right button on your mouse then click [properties] menu.



Figure 6: Step 1 of setting your PC's network environment

- 3.1.2.1. Check the “Local Area Connection” then click the right button on your mouse then click [Properties] menu.

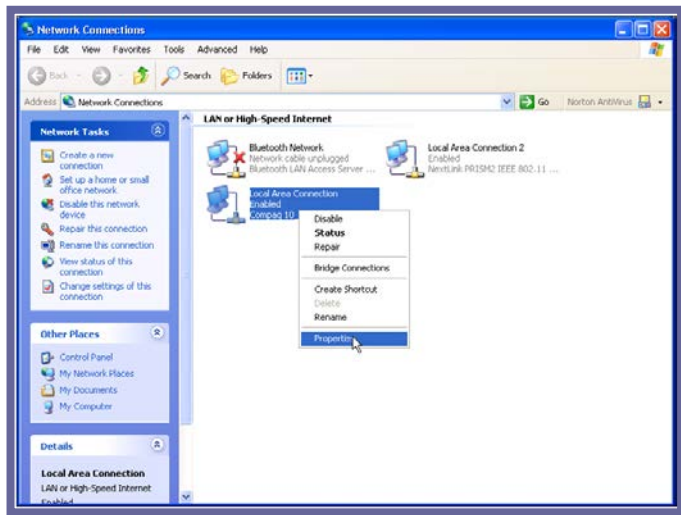


Figure 7: Step 2 of setting your PC's network environment

- 3.1.2.2. Double click the “Internet Protocol [TCP/IP]” item.

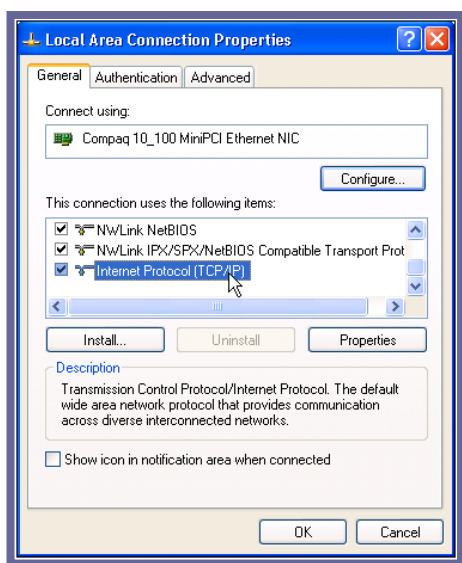


Figure 8: Step 3 of setting your PC's network environment

- 3.1.2.3. Check the “Use the following IP Address” then enter IP address as 192.168.10.2 Subnet mask as 255.255.255.0

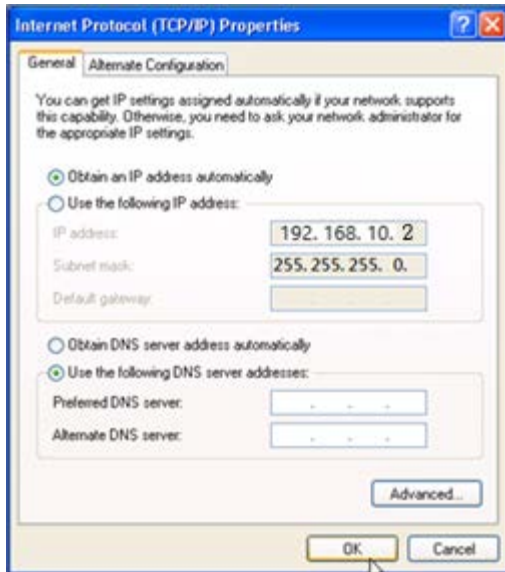


Figure 9: Step 4 of setting your PC's network environment

- 3.1.2.4. Host PC's setting is finished. Connect a LAN cable and a power cable on ML-R412-WG. Wait till the “IP” LED is on then access Internet wirelessly.

3.2. CONFIGURATION INTERFACE

Launch the web browser and put `https://192.168.10.1` on the address filed in browser.

Web will show warning message. Please select 'Advance' and continue. It will pop-up login page like follow

24.10-SNAPSHOT r0-01147d5

Authorization Required

Please enter your username and password.

Username	<input type="text" value="root"/>
Password	<input type="password"/>

Default login credential is Username: **root**

Password: **r412356**

Then click on "Login". It will show Status of this router.

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Status

Modem

Firmware Version	1.24.12 2025-08-28T11:56:12
IMEI	865061060434970
Revision	EG25GLGAR07A03M1G
Registration	Chunghwa registered
Roaming	off
Cell ID	23
PLMN code	466 92
Tracking Area Code	35b6
Radio Access Technology	LTE
Signal	 -103 dB

System

Hostname	LTE345
Model	Lightspeed LTE345C
Architecture	MediaTek MT7628AN ver:1 eco.2
Target Platform	ramips/mt76x8
Firmware Version	OpenWrt 24.10-SNAPSHOT r0-01147d5 / LuCI main branch 25.065.46284-5e5b963
Kernel Version	6.6.79
Local Time	2025-09-23 17:25:48
Uptime	6h 14m 8s

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4. How to do configuration

4.1. WAN SETUP






4.1.1. Please reboot the ML-R412-WG when you finish change configurations.

Click on Network>Interface>WWAN

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[Global network options](#)

Interfaces

lan  br-lan	Protocol: Static address Uptime: 6h 15m 59s MAC: B0:14:08:0C:0E:73 RX: 133.26 MB (401472 Pkts.) TX: 406.04 MB (573115 Pkts.) IPv4: 192.168.10.1/24 IPv6: fdc6:6740:7a5a::1/60	Restart Stop Edit Delete
wan  eth0.2	Protocol: DHCP client MAC: B0:14:08:0C:0E:73 RX: 0 B (0 Pkts.) TX: 2.60 MB (7720 Pkts.)	Restart Stop Edit Delete
wan6  eth0.2	Protocol: DHCPv6 client MAC: B0:14:08:0C:0E:73 RX: 0 B (0 Pkts.) TX: 2.60 MB (7720 Pkts.)	Restart Stop Edit Delete
wwan  wwan0	Protocol: QMI Cellular Uptime: 2h 9m 54s RX: 97.42 MB (129610 Pkts.) TX: 53.13 MB (114358 Pkts.)	Restart Stop Edit Delete
wwan_4  wwan0	Protocol: Virtual dynamic interface (DHCP client) Uptime: 2h 9m 52s IPv4: 10.67.61.159/26	Restart Stop Edit Delete

It shows all WWAN settings. Default settings :APN: internet, Authentication: NONE. These may be different for Operators. If eSIM is used, then this is unnecessary to fill. eSIM covers it all. To modify the WWAN configuration, review the available settings and adjust them according to your service provider's requirements. Ensure that you input the correct APN and authentication details, as specified for your network operator. If you make changes, remember to save the settings and reboot the ML-R412-WG device to apply the updates.

Interfaces » wwan

[General Settings](#)
[Advanced Settings](#)
[Firewall Settings](#)
[DHCP Server](#)

[Status](#)

Device: wwan0
Uptime: 2h 14m 54s
RX: 97.71 MB (129415 Pkts.)
TX: 53.45 MB (115318 Pkts.)

Protocol QMI Cellular ▼

Disable this interface ☐

Bring up on boot ☒

Modem device /dev/cdc-wdm0 ▼

APN internet

IPv6 APN

PIN

Authentication Type NONE ▼

PDP Type IPv4/IPv6 ▼

[Dismiss](#)
[Save](#)

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4.1.2. Overview. This shows all details of modem & internal system.

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Modem

Firmware Version	1.24.12 2025-08-28T11:56:12
IMEI	865061060434970
Revision	EG25GLGAR07A03M1G
Registration	Chunghwa registered
Roaming	off
Cell ID	23
PLMN code	466 92
Tracking Area Code	35b6
Radio Access Technology	LTE
Signal	<div><div></div><div>-103 dB</div></div>

System

Hostname	
Model	
Architecture	MediaTek MT7628AN ver:1 eco:2
Target Platform	ramips/mt76x8
Firmware Version	OpenWrt 24.10-SNAPSHOT r0-01147d5 / LuCI main branch 25.065.46284~5e5b963
Kernel Version	6.6.79

4.1.3. Routing

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Routing

The following rules are currently active on this system.

IPv4 Routing

IPv6 Routing

IPv4 Neighbours

IP address	MAC address	Interface
192.168.10.172	F0:2F:74:00:56:55	lan

Active IPv4 Routes

Device	Target	Gateway	Metric	Table	Protocol
wwan_4	0.0.0.0/0	10.67.81.160	20	main	
wwan_4	10.67.81.128/26	-	20	main	
lan	192.168.10.0/24	-	0	main	

Active IPv4 Rules

Priority	Rule
0	from all lookup local
32766	from all lookup main
32767	from all lookup default

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4.1.4. Firewall. It shows all firewall settings

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IPv4/IPv6 traffic table "fw4"

Traffic filter chain "input"

- Hook: **input** (Capture incoming packets routed to the local system), Priority: **0**
- Policy: **drop** (Drop unmatched packets)

Rule matches

Ingress device **id** is **lo**

Rule actions

Accept packet

{ vmap }

TCP flags & fin | **syn** is **syn**

Continue in **syn_flood**

Ingress device name is **br-lan**

Continue in **input_lan**

Ingress device name in set { **wwan0, eth0.2** }

Continue in **input_wan**

Any packet

Continue in **handle_reject**

Traffic filter chain "forward"

- Hook: **forward** (Capture incoming packets addressed to other hosts), Priority: **0**
- Policy: **drop** (Drop unmatched packets)

Rule matches

IP protocol in set { **tcp, udp** }

Rule actions

Utilize flow table **ft**

{ vmap }

Ingress device name is **br-lan**

Continue in **forward_lan**

Ingress device name in set { **wwan0, eth0.2** }

Continue in **forward_wan**

Any packet

Continue in **handle_reject**

4.1.5. System log. This keeps all communication record.

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System Log Kernel Log

System Log

[Scroll to tail](#)

```
Wed Aug 6 20:34:37 2025 kern.notice kernel: [ 0.000000] Linux version 6.6.79 (user@456e9497666b) (mipsel-openwrt-linux-musl-gcc (OpenWrt GCC 13.3.0 r0-0)
Wed Aug 6 20:34:37 2025 kern.info kernel: [ 0.000000] Board has DDR2
Wed Aug 6 20:34:37 2025 kern.info kernel: [ 0.000000] Analog PMU set to hw control
Wed Aug 6 20:34:37 2025 kern.info kernel: [ 0.000000] Digital PMU set to hw control
Wed Aug 6 20:34:37 2025 kern.info kernel: [ 0.000000] SoC Type: MediaTek MT7628AN ver:1 eco:2
Wed Aug 6 20:34:37 2025 kern.info kernel: [ 0.000000] printk: bootconsole [early0] enabled
Wed Aug 6 20:34:37 2025 kern.info kernel: [ 0.000000] CPU0 revision is: 00019655 (MIPS 24Kec)
Wed Aug 6 20:34:37 2025 kern.info kernel: [ 0.000000] MIPS: machine is Lightspeed LTE345C
Wed Aug 6 20:34:37 2025 kern.info kernel: [ 0.000000] Initrd not found or empty - disabling initrd
Wed Aug 6 20:34:37 2025 kern.info kernel: [ 0.000000] Primary instruction cache 64kB, VIPT, 4-way, linesize 32 bytes.
Wed Aug 6 20:34:37 2025 kern.info kernel: [ 0.000000] Primary data cache 32kB, 4-way, PIPT, no aliases, linesize 32 bytes
Wed Aug 6 20:34:37 2025 kern.info kernel: [ 0.000000] Zone ranges:
Wed Aug 6 20:34:37 2025 kern.info kernel: [ 0.000000] Normal [mem 0x0000000000000000-0x0000000003ffffff]
Wed Aug 6 20:34:37 2025 kern.info kernel: [ 0.000000] Movable zone start for each node
Wed Aug 6 20:34:37 2025 kern.info kernel: [ 0.000000] Early memory node ranges
Wed Aug 6 20:34:37 2025 kern.info kernel: [ 0.000000] node 0: [mem 0x0000000000000000-0x0000000003ffffff]
Wed Aug 6 20:34:37 2025 kern.info kernel: [ 0.000000] Initmem setup node 0 [mem 0x0000000000000000-0x0000000003ffffff]
Wed Aug 6 20:34:37 2025 kern.info kernel: [ 0.000000] pcpu-alloc: s0 r0 d32768 u32768 alloc=1*32768
Wed Aug 6 20:34:37 2025 kern.debug kernel: [ 0.000000] pcpu-alloc: [0] 0
Wed Aug 6 20:34:37 2025 kern.notice kernel: [ 0.000000] Kernel command line: console=ttyS0,57600 rootfstype=squashfs,jffs2
Wed Aug 6 20:34:37 2025 kern.info kernel: [ 0.000000] Dentry cache hash table entries: 8192 (order: 3, 32768 bytes, linear)
Wed Aug 6 20:34:37 2025 kern.info kernel: [ 0.000000] Inode-cache hash table entries: 4096 (order: 2, 16384 bytes, linear)
Wed Aug 6 20:34:37 2025 kern.info kernel: [ 0.000000] Writing ErrCtl register=00000005
Wed Aug 6 20:34:37 2025 kern.info kernel: [ 0.000000] Readback ErrCtl register=00000005
```

4.1.6. Processes

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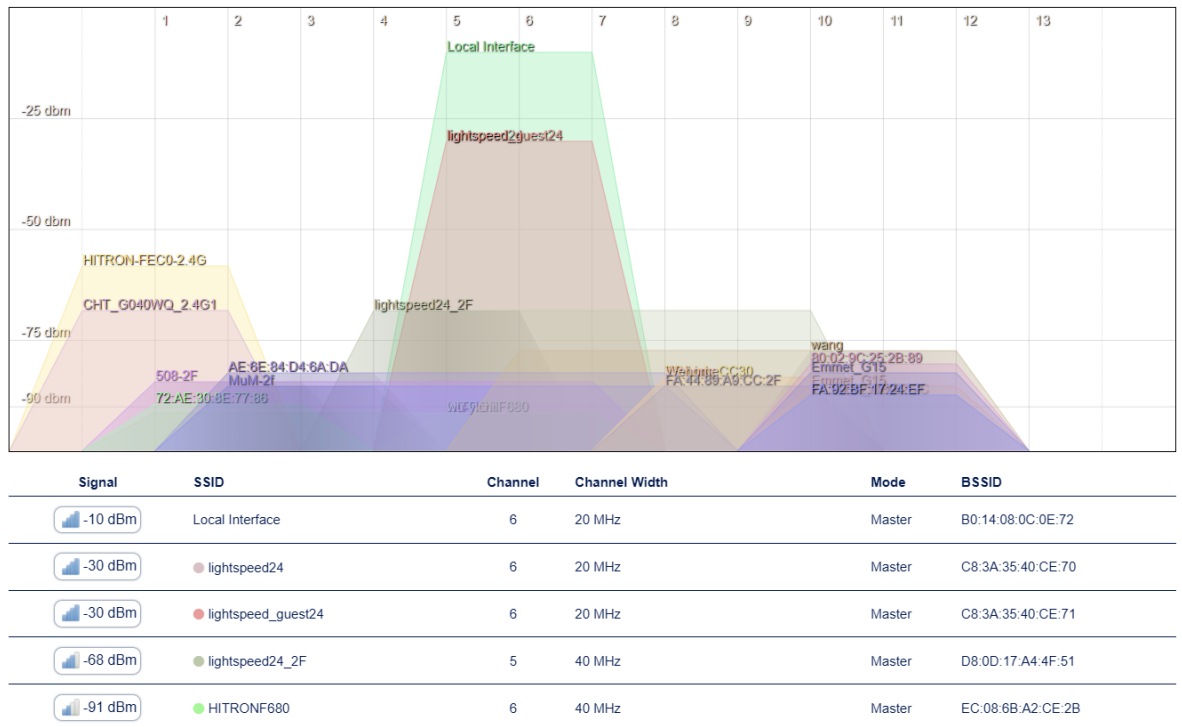
Processes

This list gives an overview over currently running system processes and their status.

PID	Owner	Command	CPU usage (%)	Memory usage (%)			
1	root	/sbin/procd	0%	4%	Hang Up	Terminate	Kill
2	root	[kthreadd]	0%	0%	Hang Up	Terminate	Kill
3	root	[pool_workqueue_]	0%	0%	Hang Up	Terminate	Kill
4	root	[kworker/R-slab_]	0%	0%	Hang Up	Terminate	Kill
6	root	[kworker/0.0H-kb]	0%	0%	Hang Up	Terminate	Kill
8	root	[kworker/R-mm_pe]	0%	0%	Hang Up	Terminate	Kill

4.1.7. Channel Analysis. This shows all existing WiFi channels in detail.

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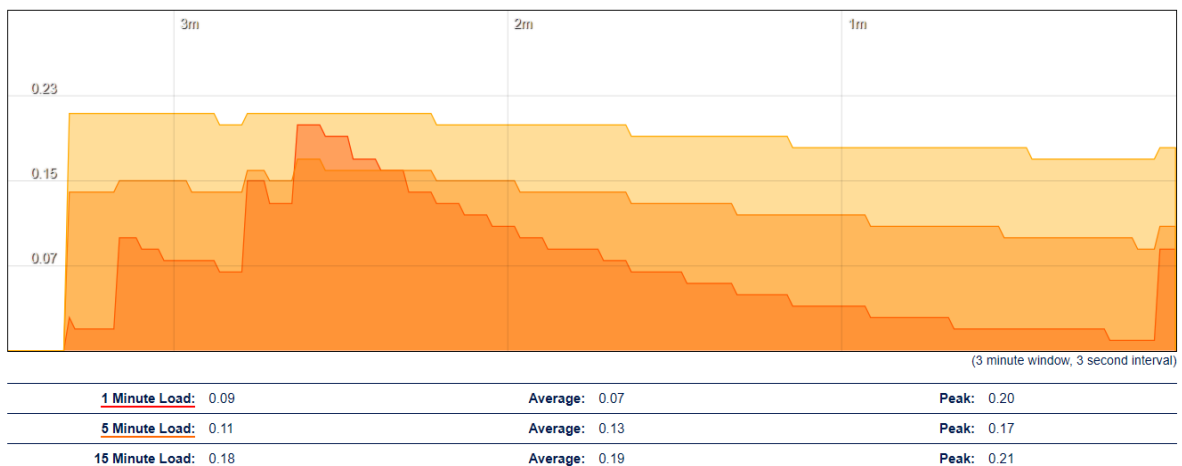
4.1.8. Realtime graphs. This shows system resource loading.

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Load Bandwidth Wireless Connections

System load

Load Average is a metric that is used by Linux to keep track of system resources.



4.2. SYSTEM

4.2.1. System. It contains General settings for local time, host name, Time zone, Time synchronization, language type. Currently it supports English & Traditional Chinese.

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System

Here you can configure the basic aspects of your device like its hostname or the timezone.

System Properties

General Settings Logging Time Synchronization Language and Style

Local Time

2025-09-23 18:10:18

Hostname

LTE345

Description

An optional, short description for this device

Notes

Optional, free-form notes about this device

Timezone

Asia/Taipei

4.2.2. Administration

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Router Password

Router Password SSH Access SSH-Keys HTTP(S) Access

Changes the administrator password for accessing the device

Password

Confirmation

4.2.3. Software. This is to install extra software. This depends on what kind of software needs to be installed. This may need extra study to check whether it can be done or not.

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Software

Install additional software and upgrade existing packages with opkg.

Warning! Package operations can break your system.

Disk space:

22% used (244.00 KiB used of 1.08 MiB, 844.00 KiB free)

Filter:

Type to filter...

Clear

Download and install package:

Package name or URL...

OK

Actions:

Update lists...

Upload Package...

Configure opkg

Display LuCI translation packages:

☒ filtered
 ☐ all
 ☐ none

Available	Installed	Updates
No packages.		
Package name	Version	Description
No information available		

4.2.4. Startup

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Startup

Initscripts Local Startup

You can enable or disable installed init scripts here. Changes will be applied after a device reboot.

Warning: If you disable essential init scripts like "network", your device might become inaccessible!

Start priority	Initscript	
00	sysfixtime	Enabled Start Restart Reload Stop
00	urngd	Enabled Start Restart Reload Stop
10	boot	Enabled Start Restart Reload Stop
10	system	Enabled Start Restart Reload Stop
11	sysctl	Enabled Start Restart Reload Stop
12	log	Enabled Start Restart Reload Stop
12	rpcd	Enabled Start Restart Reload Stop
19	dnsmasq	Enabled Start Restart Reload Stop
19	dropbear	Enabled Start Restart Reload Stop

4.2.5. Scheduled Tasks

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Scheduled Tasks

This is the system crontab in which scheduled tasks can be defined.

4.2.6. LED Configuration

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LED Configuration

Customizes the behaviour of the device LEDs if possible.

Name	LED Name	Trigger	
3g_link	green:internet	netdev	⋮ Edit Delete
Add LED action			
Save & Apply Save Reset			

- 4.2.7. Backup / Flash Firmware. When click on “Flash image”, click on Brose to select correct image to upgrade. Usually, it may take 3 minutes.If it takes more then 5 minutes, you can login again to check the firmware version. After Flash image is done, it is recommended to perform reboot.

Uploading file...

Please select the file to upload.

Browse...

CancelUpload

StatusSystemSystemAdministrationSoftwareStartupScheduled TasksLED ConfigurationBackup / Flash FirmwareRebootNetworkLog out

Flash operations

ActionsConfiguration

Backup

Click "Generate archive" to download a tar archive of the current configuration files.

Download backupGenerate archive

Restore

To restore configuration files, you can upload a previously generated backup archive here. To reset the firmware to its initial state, click "Perform reset" (only possible with squashfs images).

Reset to defaultsPerform reset

Restore backupUpload archive...

Custom files (certificates, scripts) may remain on the system. To prevent this, perform a factory-reset first.

Save mtddblock contents

Click "Save mtddblock" to download specified mtddblock file. (NOTE: THIS FEATURE IS FOR PROFESSIONALS!)

Choose mtddblocku-boot

Download mtddblockSave mtddblock

Flash new firmware image

Upload a sysupgrade-compatible image here to replace the running firmware.

ImageFlash image...

4.2.8. Reboot

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Reboot

Reboots the operating system of your device

Perform reboot

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4.3. NETWORK

4.3.1. Interface

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Interfaces Devices Global network options

Interfaces

lan  br-lan	Protocol: Static address Uptime: 7h 31m 0s MAC: B0:14:08:0C:0E:73 RX: 223.26 MB (1545419 Pkts.) TX: 3.63 GB (2761747 Pkts.) IPv4: 192.168.10.1/24 IPv6: fdc6:6740:7a5a::1/60	Restart Stop Edit Delete
wan  eth0.2	Protocol: DHCP client MAC: B0:14:08:0C:0E:73 RX: 0 B (0 Pkts.) TX: 3.12 MB (9256 Pkts.)	Restart Stop Edit Delete
wan6  eth0.2	Protocol: DHCPv6 client MAC: B0:14:08:0C:0E:73 RX: 0 B (0 Pkts.) TX: 3.12 MB (9256 Pkts.)	Restart Stop Edit Delete
wwan  wwan0	Protocol: QMI Cellular Uptime: 0h 0m 57s RX: 313.94 KB (661 Pkts.) TX: 236.01 KB (688 Pkts.)	Restart Stop Edit Delete
wwan_4  wwan0	Protocol: Virtual dynamic interface (DHCP client) Uptime: 0h 0m 55s IPv4: 10.72.231.205/30	Restart Stop Edit Delete

[Add new interface...](#)

[Save & Apply](#) [Save](#) [Reset](#)

4.3.2. Wireless. This is to show all information of WiFi related information.

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Wireless Overview

 radio0	MediaTek MT7628 802.11b/g/n Channel: 6 (2.437 GHz) Bitrate: ? Mbit/s	Restart Scan Add
 dBm	SSID: LTE345_0C0E72 Mode: Master BSSID: B0:14:08:0C:0E:72 Encryption: WPA2 PSK (CCMP)	Disable Edit Remove

Associated Stations

Network	MAC address	Host	Signal / Noise	RX Rate / TX Rate
No information available				

[Save & Apply](#) [Save](#)

4.3.3. Switch

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Switch

The network ports on this device can be combined to several VLANs in which computers can communicate directly with each other. VLANs are often used to separate different network segments. Often there is by default one Uplink port for a connection to the next greater network like the internet and other ports for a local network.

Switch "switch0" (rt305x-esw), ports: 7 (cpu @ 6)

Enable VLAN functionality ☒

VLANs on "switch0" (rt305x-esw), ports: 7 (cpu @ 6)

VLAN ID	Description	CPU (eth0)	LAN	WAN	
Port status:					
					
1		tagged	untagged	off	Delete
2		tagged	off	untagged	Delete

[Add VLAN](#)

[Save & Apply](#) [Save](#) [Reset](#)

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4.3.4. Routing

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Routing

Routing defines over which interface and gateway a certain host or network can be reached. Routes go in routing tables and define the specific path to reach destinations. Rules determine which routing table to use, based on conditions like source address or interface.

Static IPv4 Routes Static IPv6 Routes IPv4 Rules IPv6 Rules

Static IPv4 Routes

Interface	Target	Gateway	Metric	Table	Disable
This section contains no values yet					
<div>Add</div>					
<div>Save & Apply Save Reset</div>					

4.3.5. DHCP & DNS

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DHCP and DNS

Dnsmasq is a lightweight DHCP server and DNS forwarder.

General Cache Devices & Ports DNS Records Filter Forwards Limits Log Resolv & Hosts Files Static Leases IP Sets Relay PXE/TFTP

Authoritative	<input checked="" type="checkbox"/> This is the only DHCP server in the local network.
Resolve these locally	<input type="text" value="/lan/"/> Never forward these matching domains or subdomains; resolve from DHCP or hosts files only.
Local domain	<input type="text" value="lan"/> Local domain suffix appended to DHCP names and hosts file entries.
Expand hosts	<input checked="" type="checkbox"/> Add local domain suffix to names served from hosts files.
Addresses	<div><input type="text" value="/router.local/router.lan/192.168.0.1"/> +</div> <p>Resolve specified FQDNs to an IP. Syntax: /fqdn[/fqdn...]/[ipaddr]. /example.com/ returns NXDOMAIN. /#/ matches any domain (and returns NXDOMAIN). /example.com/# returns NULL addresses (0.0.0.0, ::) for example.com and its subdomains.</p>
IP sets	<div><input type="text" value="/example.org/ipset/ipset6"/> +</div> <p>List of IP sets to populate with the IPs of DNS lookup results of the FQDNs also specified here.</p>
Allocate IPs sequentially	<input type="checkbox"/> Allocate IP addresses sequentially, starting from the lowest available address.
All servers	<input type="checkbox"/> Query all available upstream resolvers. First answer wins.
<div><input type="text" value="New instance name..."/><div>Add server instance</div></div>	

4.3.6. Diagnostics

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Diagnostics

Execution of various network commands to check the connection and name resolution to other systems.

<input type="text" value="openwrt.org"/> <div>IPv4 Ping</div>	<input type="text" value="openwrt.org"/> <div>IPv4 Traceroute</div>	<input type="text" value="openwrt.org"/> <div>Nslookup</div>
<div></div>		

4.3.7. Firewall

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General Settings

Port Forwards

Traffic Rules

NAT Rules

IP Sets

Firewall - Zone Settings

The firewall creates zones over your network interfaces to control network traffic flow.

General Settings

Enable SYN-flood protection☒

Drop invalid packets☐

Input

reject

Output

accept

Forward

reject

Routing/NAT Offloading

Not fully compatible with QoS/SQM.

Flow offloading type

Hardware flow offloading

Zones

Zone → Forwards

Input

Output

Intra zone forward

Masquerading

lan ⇒ wan REJECT all others

accept

accept

accept

☐

Edit

Delete

wan ⇒ REJECT

reject

accept

reject

☒

Edit

Delete

Add

Save & Apply

Save

Reset

4.4. LOGOUT

Once it is logout, it will require password to login again.

Authorization Required

Please enter your username and password.

Username

root

Password

Log in

Reset

-----End-----