

TP-Link TL-MR6400 v5

Under Construction!

This page is currently under construction. You can edit the article to help completing it.

Write a short, relevant description of the device. Include a technical overview, but avoid marketing buzzwords/useless stuff. Two to four sentences is about right. A picture is good, too. Edit the page to see how to add pictures.

 Fix Me! Any text with a light background (like this one) provides instructions for creating the Details Page. When you have filled in correct/useful information (instead of any template that's there) **remove the instructions, as well as the <WRAP> that encloses it.**



 Fix Me!

Getting started with a new Device Page

1. This is an empty template that suggests the information that should be present on a well-constructed Device Page. This means, that **you have to fill it with life and information.**

2. There are several “fixme” tags with text on a light background (like this text) throughout this template. As you fill in the page, remove those tags so that people can judge its completeness.
3. When there are no more “fixme” tags left, delete this one too, along with the <WRAP> that encloses it.

Keep the articles modular

- Please include only model specific information, omit bla,bla and put everything generic into separate articles
- If you have no time to write certain stuff, link to docs
- base-system should lead the way, do not explain this again
- DO NOT provide a complete howto here! Instead *groom* the general documentation.

Supported Versions

Brand	Model	Version	Current Release	OEM Info	Forum Search	Technical Data
TP-Link	TL-MR6400	v5	23.05.0	https://www.tp-link.com/home-networking/3g-4g-router/tl-mr6400/v5/ (https://www.tp-link.com/home-networking/3g-4g-router/tl-mr6400/v5/)	TL-MR6400 (https://forum.openwrt.org/search?q=TL-MR6400)	View/Edit data

Hardware Highlights

Model	Version	SoC	CPU MHz	Flash MB	RAM MB	WLAN Hardware	WLAN2.4	WLAN5.0	100M ports	Gbit ports	Modem	USB
TL-MR6400	v5	MediaTek MT7628N	580	8	64	MediaTek MT7628N	b/g/n	-	4		LTE	-

Installation

Model	Version	Current Release	Firmware OpenWrt Install	Firmware OpenWrt Link
TL-MR6400	v5	23.05.0	https://downloads.openwrt.org/releases/23.05.0/targets/ramips/mt76x8/openwrt-23.05.0-ramips-mt76x8-tplink_tl-mr6400-v5-squashfs-tftp-recovery.bin (https://downloads.openwrt.org/releases/23.05.0/targets/ramips/mt76x8/openwrt-23.05.0-ramips-mt76x8-tplink_tl-mr6400-v5-squashfs-tftp-recovery.bin)	https://downloads.openwrt.org/releases/23.05.0-ramips-mt76x8-tplink_tl-mr6400-v5-squashfs-tftp-recovery.bin (https://downloads.openwrt.org/releases/23.05.0-ramips-mt76x8-tplink_tl-mr6400-v5-squashfs-tftp-recovery.bin)

Modem configuration

→ How to use LTE modem in QMI mode for WAN connection

The v21.02.3 image does not contain support for the built in LTE modem, however you can add this. Before installing any other packages, install `luci Proto uqmi` and then download and install the following custom uqmi package:

```
 wget https://github.com/mrhaav/openwrt/raw/master/21.02.3/uqmi_2022-05-16-0.5_mipsel_24kc.ipk  
 opkg install uqmi_2022-05-16-0.5_mipsel_24kc.ipk
```

Add a new section to `/etc/config/network` for the modem, adding the correct APN required by your ISP():

```
 config interface 'Broadband'  
    option proto 'qmi'  
    option device '/dev/cdc-wdm0'  
    option apn '<insert your ISP's APN>'  
    option auth 'none'  
    option dhcp '0'  
    option autoconnect '1'
```

Flash Layout



Find out flash layout, then add the flash layout table here (copy, paste, modify the example).

Please check out the article Flash layout. It contains examples and explanations that describe how to document the flash layout.

OEM easy installation

Flashing via OEM web interface does not work.

OEM installation using the TFTP method

→ docs:guide-user:installation:generic.flashing.tftp

You can flash via tftp recovery:

1. serve tftp-recovery image as `tp_recovery.bin` on 192.168.0.225/24
2. connect to any ethernet port
3. power on the device while holding the reset button
4. wait at least 8 seconds before releasing reset button. After downloading the new firmware image, the power light should flash for about 3mins, then the device should reboot.

Specific values needed for tftp

Bootloader tftp server IPv4() address	192.168.0.225
Firmware tftp image	Latest OpenWrt release (NOTE: Use the image containing the name “ <code>tftp</code> ” and rename it to <code>tp_recovery.bin</code>)
TFTP() window start	Power on the device while holding the RESET button for 8secs
Bootloader TFTP() client IPv4() address	192.168.0.2

Upgrading OpenWrt

→ generic.sysupgrade



These are generic instructions. Update with your router's specifics.

LuCI Web Upgrade Process

- Browse to <http://192.168.1.1/cgi-bin/luci/mini/system/upgrade/> LuCI Upgrade URL()
- Upload image file for sysupgrade to LuCI
- Wait for reboot

Terminal Upgrade Process

If you don't have a GUI() (LuCI) available, you can alternatively upgrade via the command line. There are two command line methods for upgrading:

- sysupgrade
- mtd

Note: It is important that you put the firmware image into the ramdisk (/tmp) before you start flashing.

sysupgrade

- Login as root via SSH() on 192.168.1.1, then enter the following commands:

```
cd /tmp
wget http://downloads.openwrt.org/snapshots/trunk/XXX/xxx.abc
sysupgrade /tmp/xxx.abc
```

mtd

If sysupgrade does not support this router, use mtd .

- Login as root via SSH() on 192.168.1.1, then enter the following commands:

```
cd /tmp  
wget http://downloads.openwrt.org/snapshots/trunk/XXX/xxx.abc  
mtd write /tmp/xxx.abc linux && reboot
```

Debricking

→ generic.debrick

Failsafe mode

→ failsafe_and_factory_reset

Basic configuration

→ Basic configuration After flashing, proceed with this.
Set up your Internet connection, configure wireless, configure USB port, etc.

Specific Configuration

Network interfaces

The default network configuration is:

Interface Name	Description	Default configuration
br-lan	LAN() & WiFi	192.168.1.1/24
vlan0 (eth0.1)	LAN() ports (1 to 3)	None

Interface Name	Description	Default configuration
vlan1 (eth0.2)	LAN() / WAN() port	DHCP()
wlan0	WiFi	Disabled
wwan0	Broadband	Not configured

Switch Ports (for VLANs)

Numbers 0-3 are Ports 1-4 as labeled on the unit, number 4 is the Internet (WAN()) on the unit, 5 is the internal connection to the router itself. Don't be fooled: Port 1 on the unit is number 3 when configuring VLANs. vlan0 = eth0.0, vlan1 = eth0.1 and so on.

Port	Switch port
CPU (eth0)	0
LAN() 1	1
LAN() 2	2
LAN() 3	3
LAN() 4 / WAN()	4

Buttons

→ hardware.button on howto use and configure the hardware button(s). Here, we merely name the buttons, so we can use them in the above Howto.

The TP-Link TL-MR6400 has the following buttons:

BUTTON	Event
Reset/WPS	reset

Button	Event
WiFi On/Off	?

Hardware

Info

General	
Brand	TP-Link
Model	TL-MR6400
Versions	v5
Device Type	WiFi Router
Availability	Available 2023
Comments - general	
OpenWrt Support	
Supported Since Commit	https://git.openwrt.org/?p=openwrt/openwrt.git;a=commit;h=b641eb6ecf1 https://git.openwrt.org/?p=openwrt/openwrt.git;a=commit;h=b641eb6ecf1
Supported Since Release	21.02.0

Wireless	
WLAN() 2.4GHz	b/g/n
WLAN() 5.0GHz	-
WLAN() Hardware	MediaTek MT7628N
Detachable Antennas	2
Comments - WLAN()	
Interfaces	
USB ports	-
SATA ports	-
Serial	Yes
JTAG	?
Comments - USB & SATA ports	
Misc	
LED count	7
Button count	2

Supported Current Release	23.05.0
Unsupported	
Hardware	
Bootloader	U-Boot
Target	ramips
System-On-Chip	MediaTek MT7628N
CPU MHz.	580
Flash MB.	8
RAM MB.	64
Network	
Ethernet 100M ports	4
Ethernet 1Gbit ports	
Ethernet 2.5Gbit ports	
Switch	MediaTek MT7628N
Modem	LTE
VLAN.	Yes
Comments - network ports	

	Wireless
Power supply	9 VDC, 0.85A
Links	
Forum (https://forum.openwrt.org/)	
Topic URL.	
WikiDevi (https://wikidevi.com/) URL	
OEM device homepage URL.	https://www.tp-link.com/home-ne (https://www.tp-link.com/home-ne)
Firmware OEM Stock URL	https://www.tp-link.com/support/c (https://www.tp-link.com/support/c)
Firmware OpenWrt Install URL.	https://downloads.openwrt.org/re 23.05.0-ramips-mt76x8-tplink_tl- (https://downloads.openwrt.org/r 23.05.0-ramips-mt76x8-tplink_tl-
Firmware OpenWrt Upgrade URL.	https://downloads.openwrt.org/re 23.05.0-ramips-mt76x8-tplink_tl- (https://downloads.openwrt.org/r 23.05.0-ramips-mt76x8-tplink_tl-
Edit the underlying data	View/Edit data

Photos

Front:

Insert photo of front of the casing

Back:

Insert photo of back of the casing

Backside label:

Insert photo of backside label

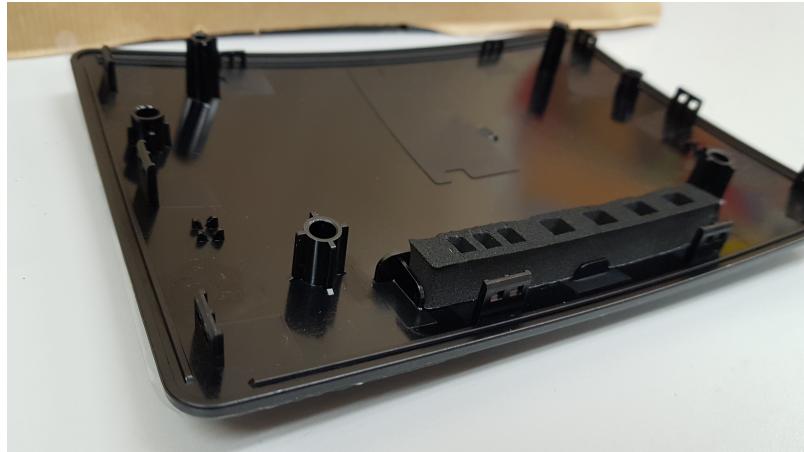
Opening the case

Note: This will void your warranty!

The backside is secured by just one screw, which is accessible by removing the right side of the label:

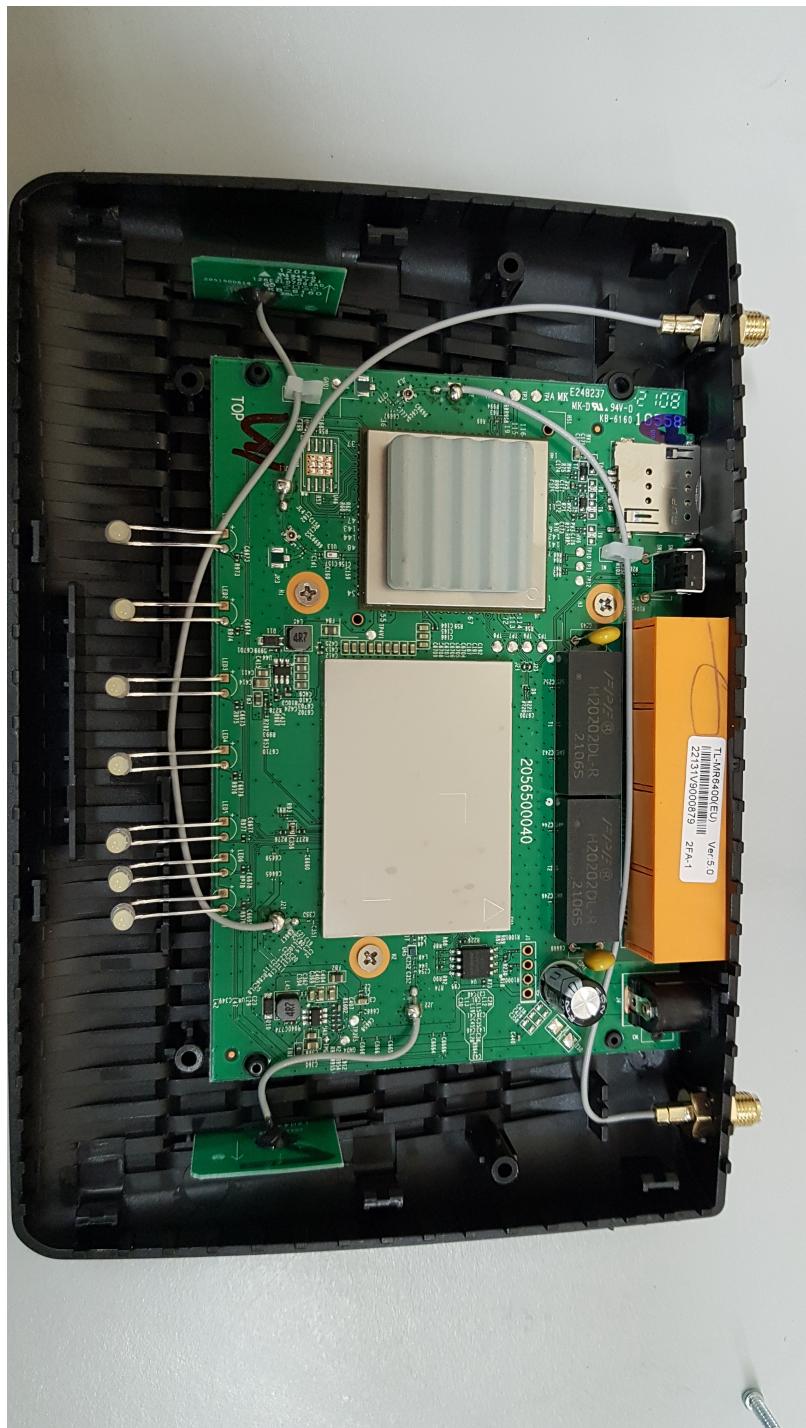


After having removed the screw, the panel is attached by plastic clips and can be pried open. See below for the position of the clips:



(Do this too often and/or apply too much force and these clips will break).

Main PCB:



Serial

→ port.serial general information about the serial port, serial port cable, etc.

How to connect to the Serial Port of this specific device:

Insert photo of PCB with markings for serial port

Serial connection parameters	115200, 8N1
for TP-Link TL-MR6400 v5	

JTAG

→ port.jtag general information about the JTAG port, JTAG cable, etc.

How to connect to the JTAG Port of this specific device:

Insert photo of PCB with markings for JTAG port

Bootloader mods

→ bootloader

Hardware mods

None so far.

Bootlogs

OEM bootlog

COPY HERE THE BOOTLOG WITH THE ORIGINAL FIRMWARE

OpenWrt bootlog

COPY HERE THE BOOTLOG ONCE OPENWRT IS INSTALLED AND RUNNING

Notes

Space for additional notes, links to forum threads or other resources.

- ...

Tags

How to add tags

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 mt7628n

 8Flash

 64RAM

 4port

 fastethernet

 802.11bgn

 lte

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