

4 October 2017

## MiniV2.5 programming notes

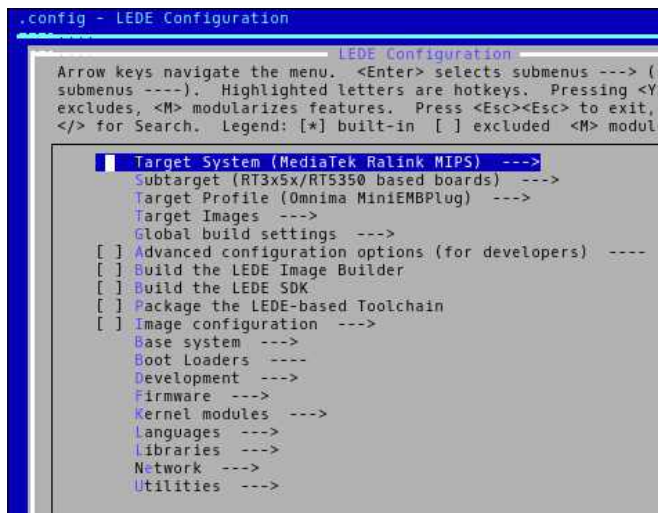
### Preinstalled OpenWrt

OpenWrt (November 2016) mainline version is preloaded on the unit.  
The root password is: mini (or empty password)

You can ssh into the unit by running: `ssh root@192.168.1.251`

### Building and compiling latest LEDE OpenWrt branch

```
git clone https://github.com/lede-project/source.git
cd source
make menuconfig (see screenshot for the config options)
make
```



The image to use with this Mini version is located in `bin/targets/ramips/rt305x`:

```
lede-ramips-rt305x-miniembplug-squashfs-sysupgrade.bin
```

## Building and compiling OpenWrt

```
git clone https://github.com/openwrt/openwrt.git
cd openwrt
make menuconfig
```

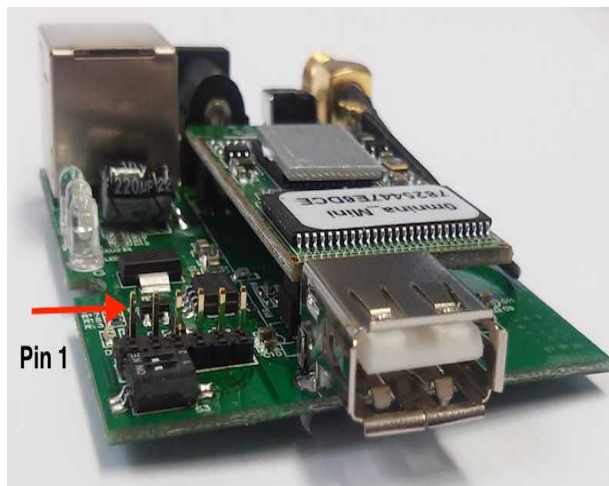
- Select the Ralink target: Target System (Ralink RT288x/RT3xxx)
- Select the subtarget: Subtarget (RT3x5x/RT5350 based boards)
- Run: make
- The image to use with this Mini version is located in bin/ramips:

```
openwrt-ramips-rt305x-omni-plug-
squashfs-sysupgrade.bin
```

## Programming using the serial to USB cable

Connect the USB to serial cable as shown here:

Pin 1	on the PCB	– **leave blank**
Pin 2	+5V	– Red wire on USB cable
Pin 3	GND	– Black wire on USB cable
Pin 4	RX	– White wire on USB cable
Pin 5	TX	– Green wire on USB cable
Pin 6	N/A	– Leave blank



The cable uses PL2303 USB bridge chipset.

The drivers are preloaded in Linux. For Windows download the drivers from the Prolific website.

The serial settings are: 57600bps, 8N1, no hardware handshake.

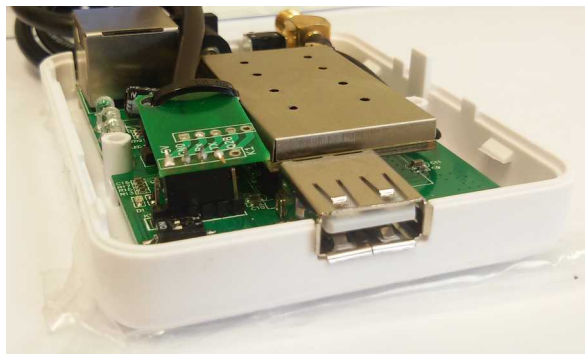


Fig 1. MiniV2.5 with the USB to serial programming cable connected

## To enter the U-boot bootloader via the serial console:

- 1) Press '2' to enter the Bootloader TFTP upload mode within the 3-4 seconds of power up.
- 2) Enter the IP address to be assigned to this board and press <Enter>
- 3) Enter the IP address of the TFTP server and press <Enter>
- 4) Enter the name of the firmware sysupgrade bin file

## Parts List

1. MiniV2.5 PCBA
2. Power adapter 5V 2A EU
3. White or black plastic case
4. White or black 2dBi WiFi antenna
5. USB to Serial cable – Prolific PL2303
6. Adapter PCB 2mm
7. 2pcs c.s.k screws