



MiraUSB  
by LumenRadio

# Plug and Play mesh connectivity

## GET STARTED

The quickest way to get started with MiraUSB is on a raspberry pi with the included .deb installer:

1. Prepare the Pi with Raspberry Pi OS, scan the QR code for more info.
2. Copy gateway/mira-gateway-armhf.deb to the Pi's memory card.
3. Boot it up and login.
4. Run: `sudo dpkg -i mira-gateway-armhf.deb`
5. Edit `/etc/default/mira-gateway`, change MIRA\_GW\_PAN\_ID and MIRA\_GW\_KEY, set MIRA\_GW\_ANTENNA to 1 and set MIRA\_GW\_FORWARD to yes.
6. Connect the Radio Module in a free USB port.
7. Start the service with: `sudo systemctl start mira-gateway`

Run: `journalctl -u mira-gateway.service -f` to see the latest messages from the service. After a couple of minutes it will show "Joining network" and "Joined network". After that mesh nodes will start to join the network.

On other platforms, run the `mira_gateway` binary (for linux x86) or the `mira_gateway-armhf-linux` (for linux arm) directly:

```
sudo ./mira_gateway -m root -r 0 -F --key=<MIRA_GW_KEY>
--panid=<MIRA_GW_PAN_ID> --dev=AUTO --dfu-dev=AUTO
-M mon.db -R --antenna=<MIRA_GW_ANTENNA>
```



For more detailed information and link to our support portal, scan this QR code:

## DATA SHEET

### Environmental

- Ambient operating temperature range -20°C to +55°C
- RH: 10 – 95% non-condensing
- IP20

- 5V supply voltage 100mA max current through USB interface
- Supports Linux/Mac hosts, both ARM and x86

### Electrical

- Range: up to 1000m free line of sight between two meshing devices
- Bluetooth range: up to 35m free line of sight
- Output (ERP): Max 20 dBm
- Sensitivity: -93dBm
- RP-SMA external antenna connector
- Internal antenna option
- Frequency band: 2.45 GHz, ISM band (2402-2480 MHz)

### Conformance

- Radio: EN 300 328 v2.2.2, FCC part 15C
- EMC: EN 301 489-1, EN 301489-17
- Electrical Safety: IEC 62368-1:2014 / EN 62368-1:2014



For MacOS builds, contact [support@lumenradio.com](mailto:support@lumenradio.com)

For orders contact [sales@lumenradio.com](mailto:sales@lumenradio.com)