lumenradio

MiraUSB

PLUG-AND-PLAY MESH CONNECTIVITY

Turn any gateway into an industrial mesh gateway with MiraUSB. Get standard IPv6 UDP messages directly into your host operating system from MiraMesh, the most robust and power-efficient mesh network on the market.

Cut time to market and development costs by quickly integrating MiraUSB into your existing gateway solution. Develop on a laptop, test on a Raspberry Pi, deploy in your industrial GW of choice. All you need is a free USB port.

Combined with an USB-cable, the gateway can be placed inside a steel-cabinet and the MiraUSB outside acting as an external antenna.

FEATURES

- Up to 1000 meter range (line of sight)
- 20 dBm output power
- External and internal antenna options
- USB 2.0 compliant
- CE & FCC approved
- Supports Linux/Mac hosts, both ARM and x86
- Runs MiraMesh natively

ROBUSTNESS LIKE NO OTHER

LumenRadio's patented Cognitive Coexistence technology lies at the heart of MiraMesh. Avoid disturbances by industry proven agile and adaptive frequency hopping algorithms and achieve +99% packet delivery rates in harsh environments.
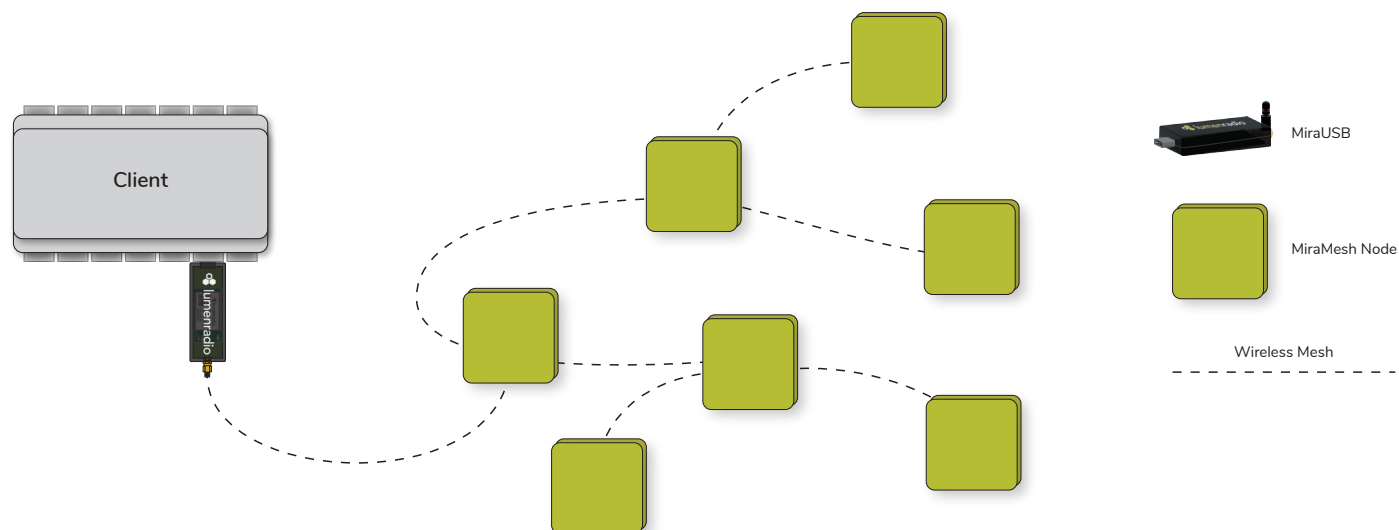
LARGE SCALE

Mesh networks co ver larger areas and hard-to-reach places. With gateways being a cost driver in IoT applications, mesh networks become more cost-efficient.

ULTRA-LOW POWER MESH

"Low power mesh" usually refers to routing nodes in the mA domain. MiraMesh enables routing nodes with as low as 20 uA.

COMPATIBLE

Communicate to other wireless equipment, such as BLE or Zigbee devices, with real-time radio time slicing for concurrent operation of multiple network stacks.

MiraUSB

MiraMesh Node

Wireless Mesh

Client

DATA SHEET

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

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

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

GET STARTED IN THREE EASY STEPS

Step 1

DEVELOP
- Develop in your own enviroment
- Unix x86 and ARM support

Step 2

TEST
- Easily switch to test systems
- Verified on Raspberry Pi 3 and 4

Step 3

DEPLOY
- Integrate into final solution
- Any Unix GW with USB 2.0 port

With patented technologies and an unique operating system, LumenRadio provides ultra-reliable mesh connectivity for the most business critical applications.

CONTACT

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