

FreedomFi Gateway is the first omni-protocol miner for the Helium network. It will mine HNT for providing LoRa coverage, but is also expandable with a certified CBRS antenna (and later Wi-Fi access points) to mine cellular traffic. Firmware pre-loaded on the gateway combines Helium miner with control and user plane components of the cellular network core, based on the open source project Magma.



Features

Sync Instantly

With 4-core Intel CPU and 4GB RAM, FreedomFi Gateway is the most powerful Helium miner on the market, featuring the fastest blockchain sync times

Ignite Open 5G Revolution

Expand your FreedomFi Gateway over time as the Helium blockchain evolves to support 5G and Wi-Fi by connecting certified cellular antennas and Wi-Fi Access Points

Stay Up To Date

Zero-touch auto-update system ensures that the software on your FreedomFi Gateway will always run the latest version with no manual intervention required

Mount on Wall or Ceiling

Wall/ceiling mounting gear, included in the packaging, makes it easy to securely install on any vertical or horizontal surface

Troubleshoot Locally

Local device status dashboard makes it possible to quickly troubleshoot and report issues, such as Internet connectivity problems

Deploy Indoor or Outdoor

All-aluminum, fanless chassis looks beautiful and has been ruggedized for a variety of deployment scenarios, including outdoors using compatible IP-rated enclosures

Interfaces



1. Gigabit Ethernet WAN Port
2. Gigabit Ethernet LTE/5G Small Cell or Wi-Fi AP Connectors
3. Power LED
4. SSD LED
5. Grounding Connector
6. DC-12V Power Input
7. Power Button
8. USB 3.2 Gen 1 (for external accessories)
9. RS232 (RJ45) Console Port
10. LoRa Antenna Rp-SMA Female Connector

Hardware Specifications

- **CPU:** Intel J1900 (Quad Core, 2.42 Ghz)
- **Storage:** 2.5 inch mSATA 64Gb SSD
- **RAM:** SO-DIMM for DDR3L 1333 Mhz 4GB
- **Ethernet:** 4 x RJ45 Copper Gigabit
- **Console:** RS232 (RJ45 port)
- **Power:** 12v in (adapter provided), 20W max
- **Dimensions:** H x W x D: 45 x 135 x 130mm
- **Operating Temp:** -10° +50° C, +14° +122° F
- **Operating Humidity:** 0 – 95% relative humidity, non-condensing
- **Chassis:** Fanless, Aluminum, Grey
- **LPWAN Concentrator:** RAK 5145, 915 Mhz (US Only)
- **LPWAN Antenna:** 1.2dBi, HWR Series; RP-SMA Connector

3GPP Feature Specifications

- **3GPP Release:** 15 for LTE, 15 for 5G SA
- **4G Core:** MME, SGW, PGW, HSS-lite
- **5G Core:** AMF, SMF, UPF, UDM-lite
- **Stateless:** Stateless MME and S-GW allow for hitless service updates/restarts
- **User Plane T-put:** 1Gbps
- **Connected Users:** >600
- **QoS Control:** 3GPP standard Quality of Service Class Identifier (QCI)
- **CUPS Support:** native
- **Handover:** S1 & X2 handover