PRODUCT BRIEF

HaLowLink 1

Long Range Sub-GHz Wi-Fi HaLow

IEEE 802.11ah Sub-1 GHz 1/2/4/8 MHz Bandwidth Wi-Fi HaLow All-in-one Router

Overview

Introducing the HaLowLink 1, your gateway to harnessing the full potential of Morse Micro's Wi-Fi HaLow. Our most consumer-ready connectivity solution yet, the HaLowLink 1 has been designed to elevate IoT and network infrastructure with seamless integration and extended range capabilities.

With its intuitive design and powerful capabilities, setting up a new network that supports Wi-Fi HaLow is easier than ever. The HaLowLink 1 functions as a Wi-Fi HaLow router, access point, and extender, allowing users to quickly create a network optimized for HaLow devices.

Paired with Morse Micro's MM6108 8MHz chipset, the Wi-Fi Certified HaLowLink 1 unlocks the extended range, low-power advantages of Wi-Fi HaLow, making it ideal for IoT devices and expansive environments. Additionally, the MT7603E 2x2 802.11n 2.4GHz Wi-Fi solution seamlessly integrates traditional Wi-Fi, providing robust connectivity for non-HaLow devices.

With this combination of performance-driven components, the HaLowLink 1 is a powerhouse that ensures maximum flexibility, allowing for extended network range and capacity without compromise. Whether deploying it in a smart home, industrial setup, or agricultural network, the HaLowLink 1 offers a future-proof solution that adapts to both current and evolving connectivity needs.

Technical Specifications

Hardware features

- CPU: Mediatek MT7621
- Memory: 256 MB DRAM
- Storage: 32MB NAND Flash
- Radio: AzureWave AW-HM593 module incorporating a Morse Micro MM6108
- TX power: Up to 23dBm
- Power: 5V...2A
- Dimensions: 88 x 68 x 24mm
- Supported regions: USA, Canada, Australia

Software features

- Based on OpenWrt 23.05
- Web UI and SSH/CLI configuration
- Status dashboard
- Wizards for easy configuration
- Streamlined software upgrades via online server

Interfaces

- 1x USB-C port (power and Ethernet data)
- 2x Gigabit Ethernet ports
- 2.4GHz 2x2 Wi-Fi (802.11n)
- HaLow Wi-Fi (802.11ah)
- Mode button

Use cases

This device isn't just about connectivity—it's about redefining what's possible in long-range, low-power networking. Intended use cases include:
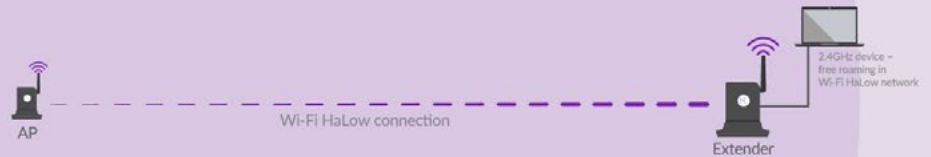
Creating Wi-Fi HaLow networks:

Use HaLowLink 1 as an access point to create Wi-Fi HaLow networks for HaLow enabled devices as well as providing connectivity for existing 2.4 GHz Wi-Fi and Ethernet devices.

HaLowLink 1

2.4GHz

Wi-Fi HaLow Coverage
Reaching up to 10X farther – and 100x the area

Connecting devices to Wi-Fi HaLow networks:

Use HaLowLink 1 to connect legacy devices on to Wi-Fi HaLow networks extending their usable range. Connect devices to HaLowLink 1 via Ethernet, 2.4 GHz Wi-Fi or USB which can then send data over Wi-Fi HaLow.

AP

Wi-Fi HaLow connection

Extender

2.4GHz device – free roaming in Wi-Fi HaLow network

Extending the range of existing networks:

Need Wi-Fi in hard-to-reach spots? Connect a HaLowLink 1 to your network, then use another HaLowLink 1 as an extender to provide 2.4 GHz Wi-Fi, Ethernet connectivity, and link back via Wi-Fi HaLow.

AP

2.4GHz

Wi-Fi HaLow bridge

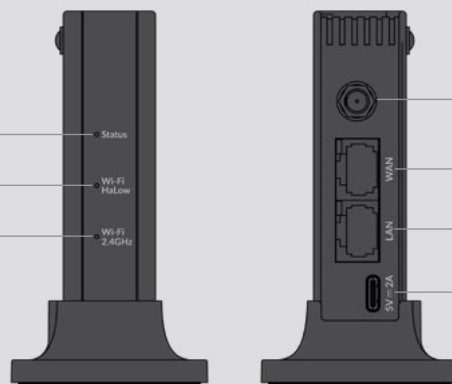Extender

2.4GHz devices

2.4GHz extended

Virtual Wire:

Replace Ethernet cables with 2 x HaLowLink 1 devices for long-range wireless connectivity over Wi-Fi HaLow. Easy setup is possible with a simple button press to pair devices together.

router

Ethernet Connection

2.4GHz device

Wi-Fi HaLow connection

Interface layout

Status

Wi-Fi HaLow active

Wi-Fi 2.4GHz active

Antenna connector

WAN Ethernet port

LAN Ethernet port

Power port (USB 2.0)

For more product information: www.morsemicro.com

Morse Micro
reaching farther ™