



HaLow-R

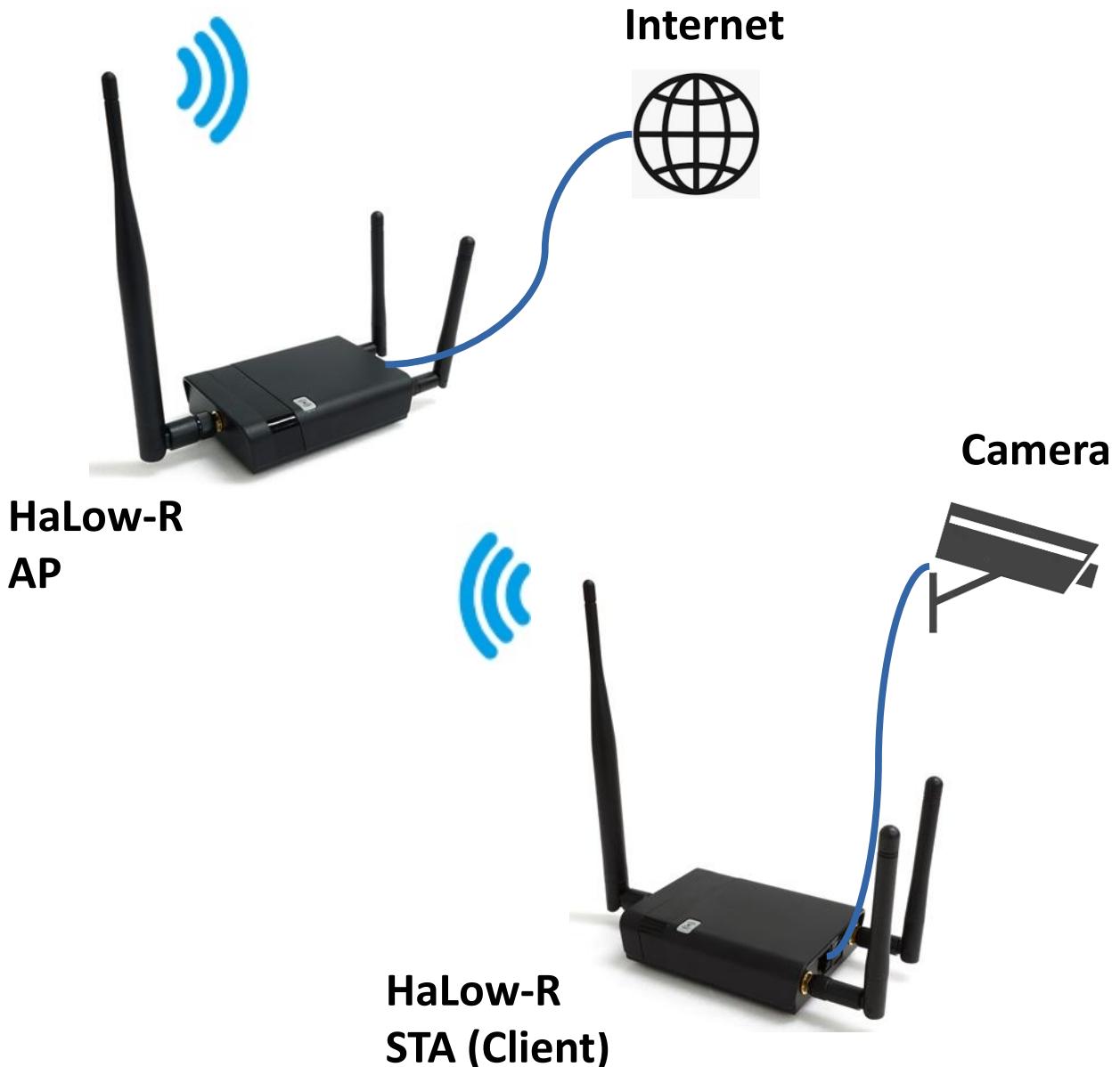
User Quick Guide

Product Overview



LED Indicator / Interface	Descriptions
1 Power Indicator (Red)	On – Power on Off – No power
2 Wi-Fi HaLow Indicator (Amber)	On – Wi-Fi HaLow is running properly Blinking – Wi-Fi HaLow is sending or receiving data
3 Wi-Fi 2.4G Indicator (Amber)	On – Wi-Fi 2.4G is running properly Blinking – Wi-Fi 2.4G is sending or receiving data
4 Ethernet Indicator (Green)	On – Ethernet port is connect Blinking – Ethernet is sending or receiving data
5 System Indicator (Blue)	Blinking – System is running properly
6 Reset Button	Reset Default - Press “Reset” button for 10 seconds
7 HaLow Antenna Connector	ANT port is used to connect Wi-Fi HaLow ANT (SMA)
8 Wi-Fi Antenna Connector	ANT port is used to connect Wi-Fi 2.4G ANT (RP-SMA)
9 Ethernet Port	RJ-45 connector for Fast Ethernet (LAN Port)
Power Port	Rated DC 12V/1A

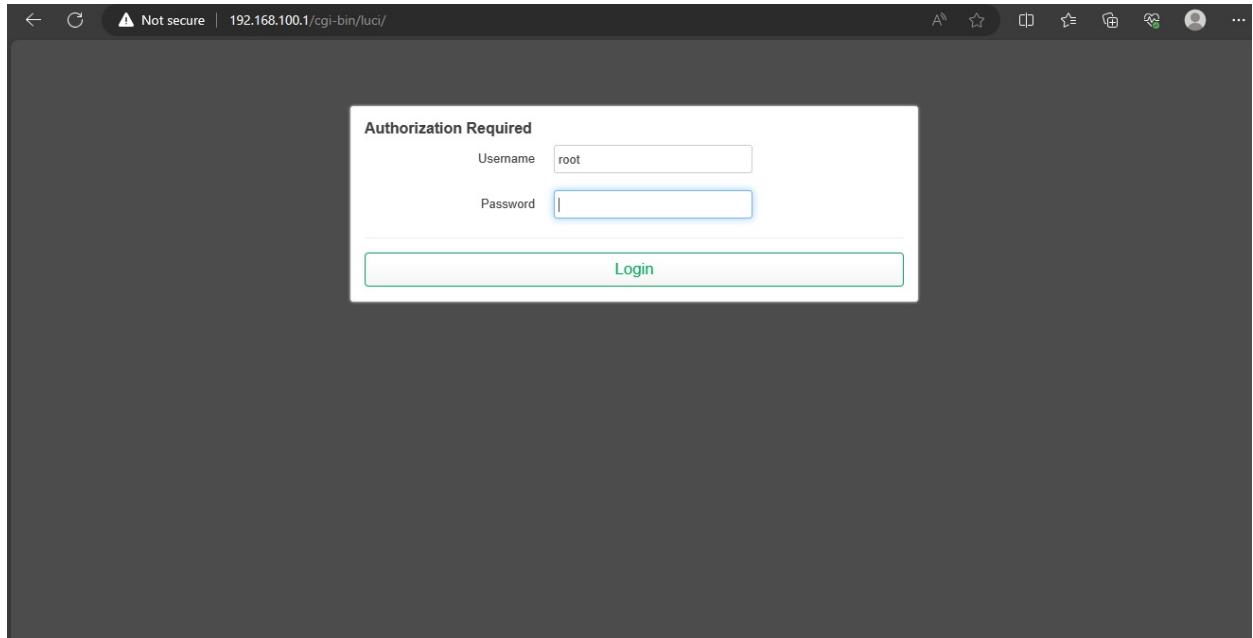
Application Scenario



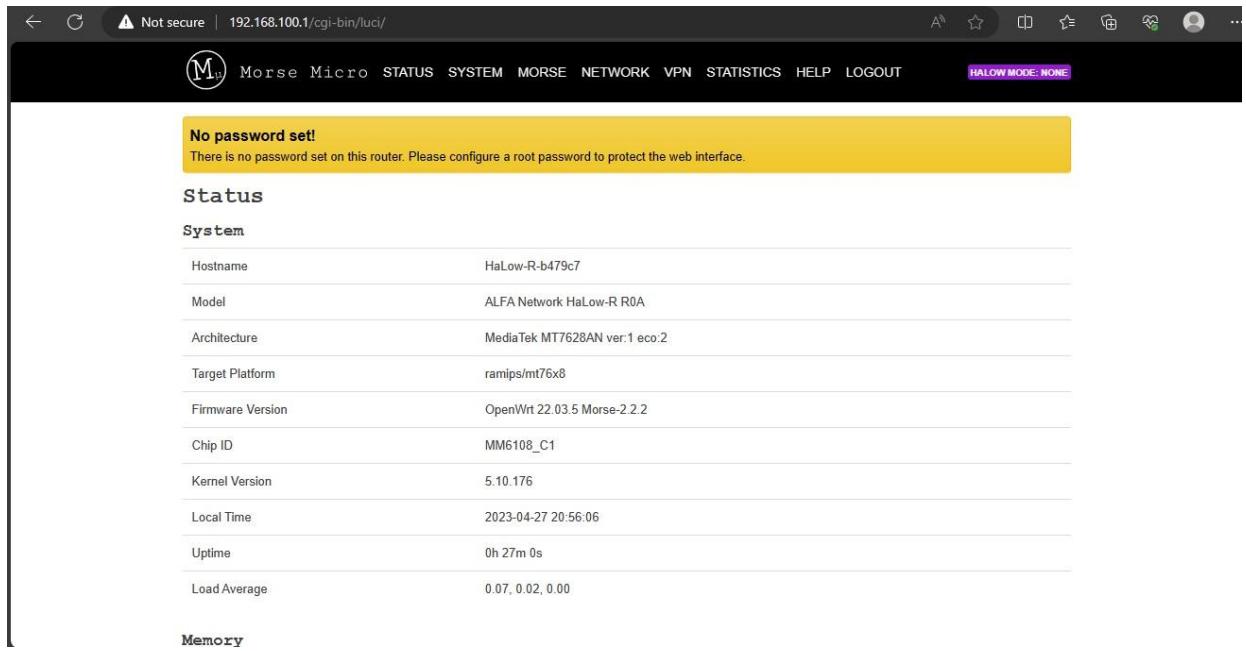
- (1).Attach Antenna to the HaLow-R and rotate the antenna until it is tight.
- (2).Connect the HaLow-R and Computer's LAN port for settings.
- (3).After setting is completed, please connect the Internet to the HaLow-R AP side.

Open Setup Page and Login

Open a browser then type 192.168.100.1 into the address bar to access the setup page, default username is “root” and no need password.



After logging in, the “STATUS” page will be shown.

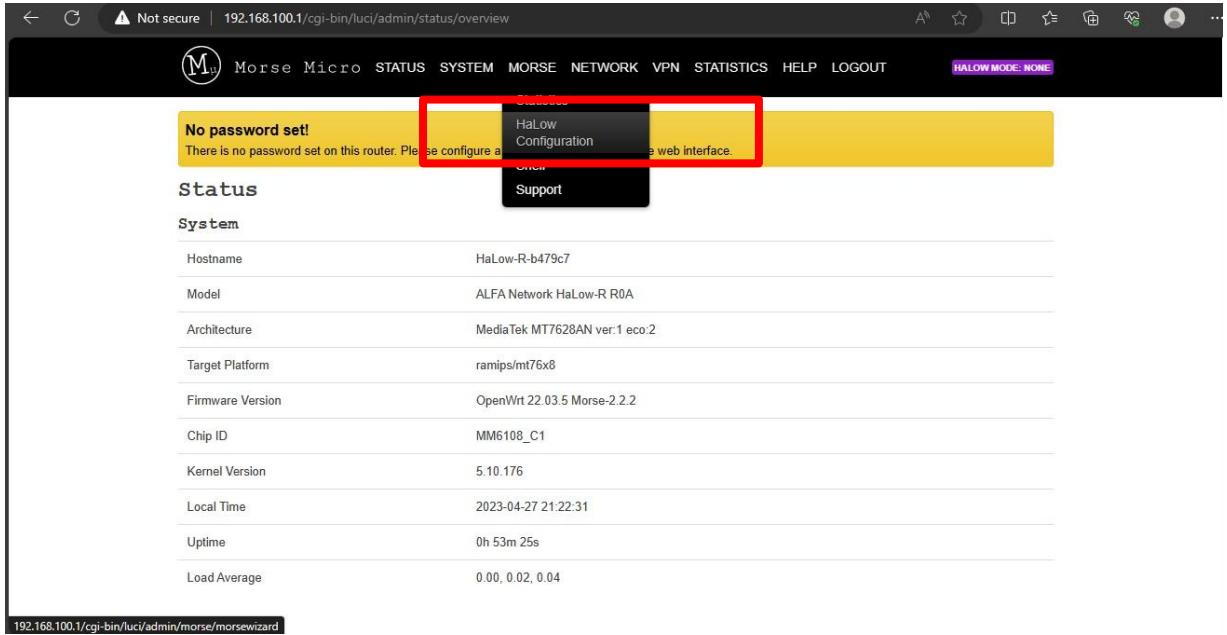


System	
Hostname	HaLow-R-b479c7
Model	ALFA Network HaLow-R R0A
Architecture	MediaTek MT7628AN ver:1 eco:2
Target Platform	ramips/mt76x8
Firmware Version	OpenWrt 22.03.5 Morse-2.2.2
Chip ID	MM6108_C1
Kernel Version	5.10.176
Local Time	2023-04-27 20:56:06
Uptime	0h 27m 0s
Load Average	0.07, 0.02, 0.00

Memory

How to Setup AP Mode

Please go to the “MORSE → HaLow Configuration” page.

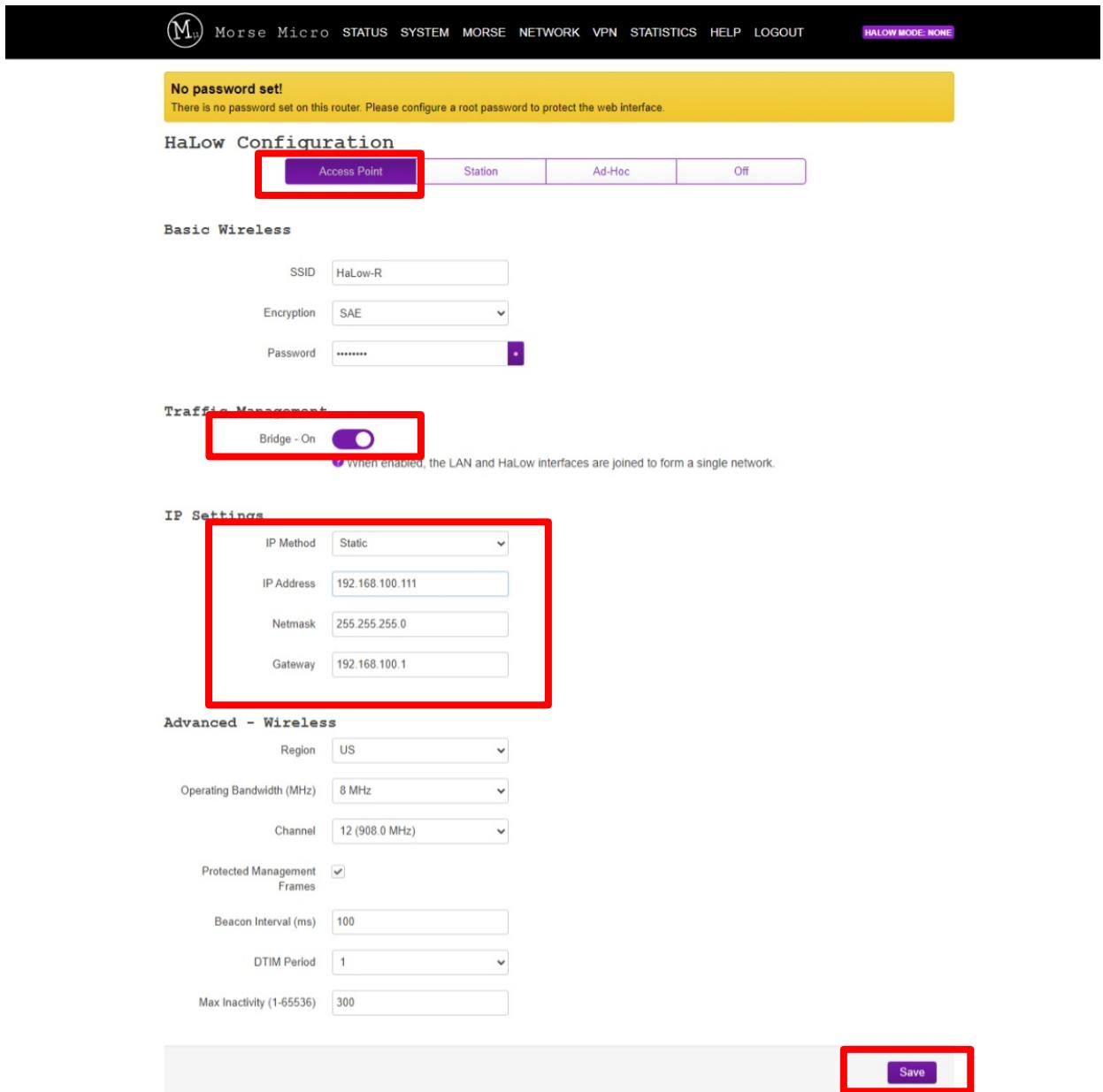


The screenshot shows a web browser window for the Morse Micro router at 192.168.100.1. The top navigation bar includes links for STATUS, SYSTEM, MORSE, NETWORK, VPN, STATISTICS, HELP, and LOGOUT. A purple banner at the top right indicates "HALOW MODE: NONE". The main content area features a yellow "No password set!" banner with a message about configuring a password. Below this is a "Status" section with a table of system information, and a "System" section with a table of configuration details. A red box highlights the "HaLow Configuration" link in the top right corner of the main content area. The URL in the address bar is 192.168.100.1/cgi-bin/luci/admin/status/overview.

System	
Hostname	HaLow-R-b479c7
Model	ALFA Network HaLow-R R0A
Architecture	MediaTek MT7628AN ver.1 eco.2
Target Platform	ramips/mt76x8
Firmware Version	OpenWrt 22.03.5 Morse-2.2.2
Chip ID	MM6108_C1
Kernel Version	5.10.176
Local Time	2023-04-27 21:22:31
Uptime	0h 53m 25s
Load Average	0.00, 0.02, 0.04

How to Setup AP Mode

- 1).Click “Access Point” page
- 2).Enable “Bridge” mode
- 3).IP Settings → “Static”, and fill the IP Address, Netmask, Gateway information.
- 4).After the setting is completed, please click the "Save" button.



No password set!
There is no password set on this router. Please configure a root password to protect the web interface.

HaLow Configuration

Access Point Station Ad-Hoc Off

Basic Wireless

SSID: HaLow-R
Encryption: SAE
Password:

Traffic Management

Bridge - On (On)
When enabled, the LAN and HaLow interfaces are joined to form a single network.

IP Settings

IP Method: Static IP Address: 192.168.100.111
Netmask: 255.255.255.0
Gateway: 192.168.100.1

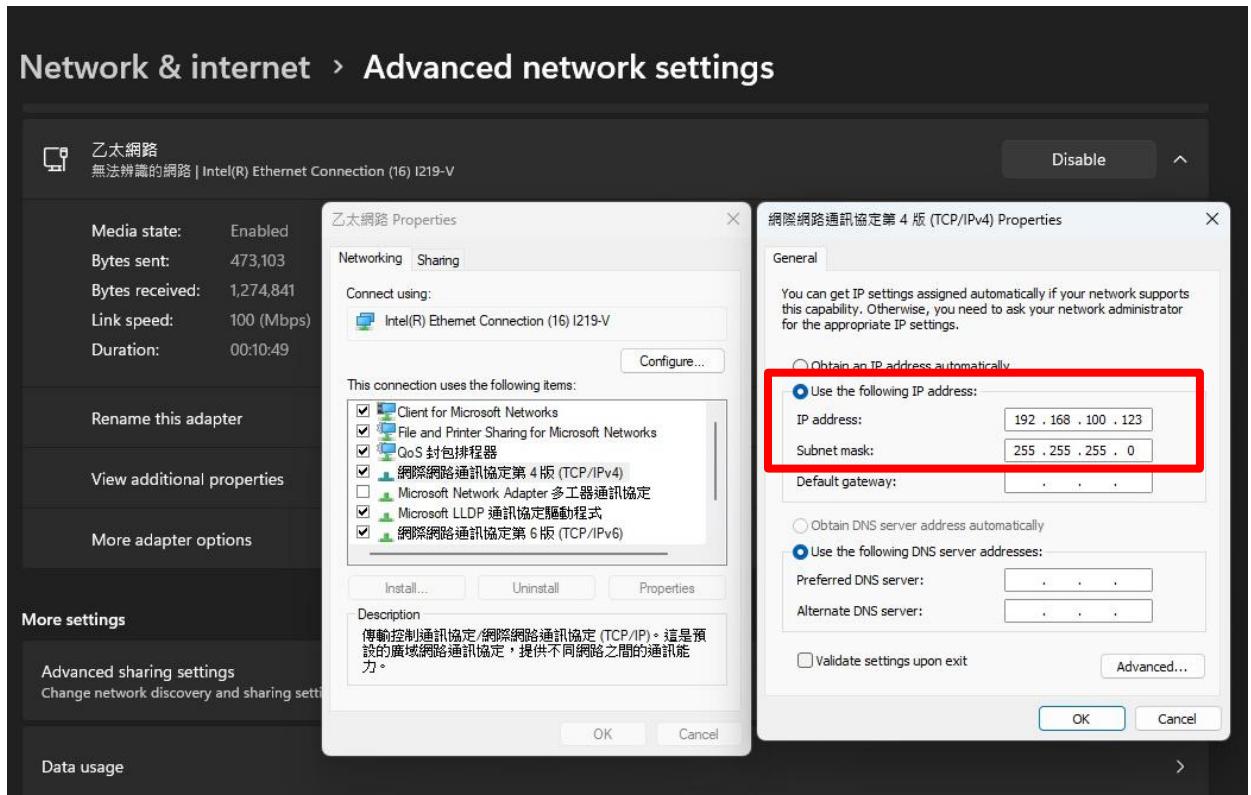
Advanced - Wireless

Region: US
Operating Bandwidth (MHz): 8 MHz
Channel: 12 (908.0 MHz)
Protected Management Frames
Beacon Interval (ms): 100
DTIM Period: 1
Max Inactivity (1-65536): 300

Save

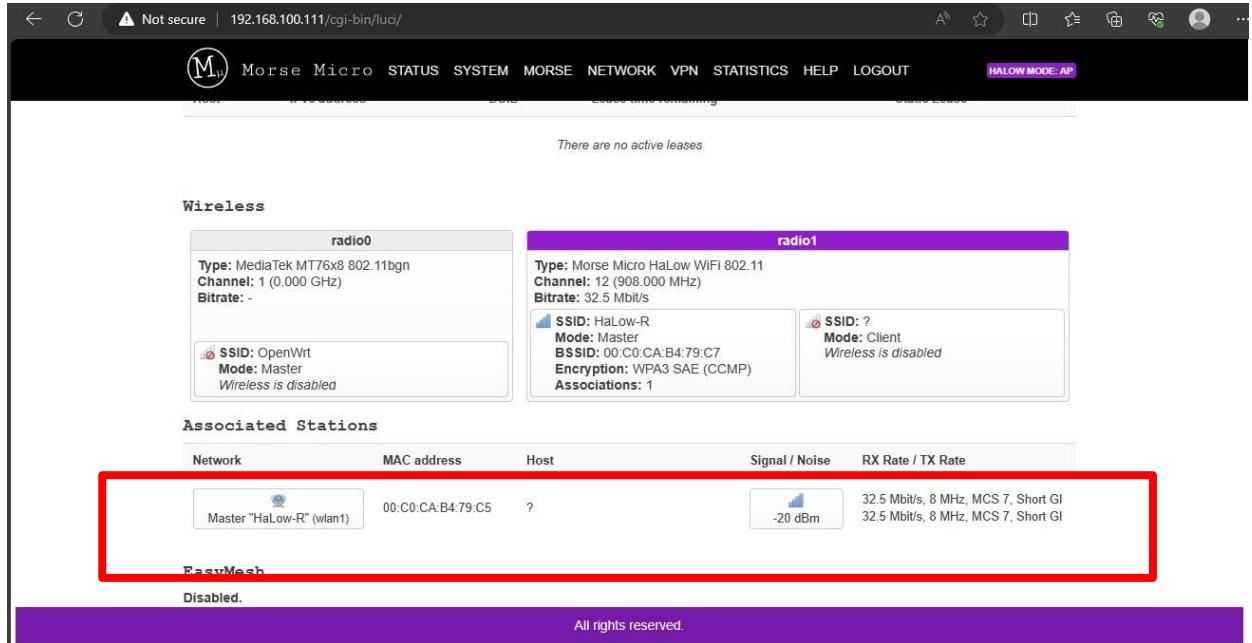
How to Setup AP Mode

Please change the IP Address of the computer to the same network segment as HaLow-R.



How to Setup AP Mode

When the Client connects to the AP, it will be shown on the “STATUS” page.



The screenshot shows the Morse Micro STATUS page with the following details:

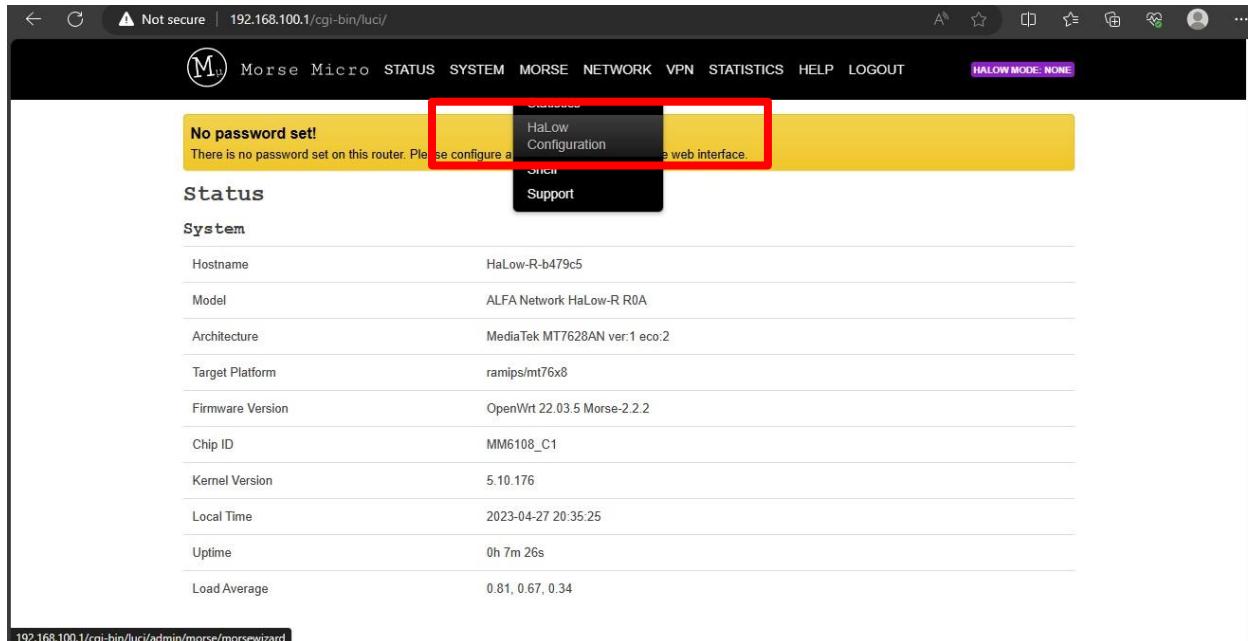
- Wireless:**
 - radio0:** Type: MediaTek MT76x8 802.11bgn, Channel: 1 (0.000 GHz), Bitrate: -. SSID: OpenWrt, Mode: Master, Wireless is disabled.
 - radio1:** Type: Morse Micro HaLow WiFi 802.11, Channel: 12 (908.000 MHz), Bitrate: 32.5 Mbit/s. SSID: HaLow-R, Mode: Master, BSSID: 00:C0:CA:B4:79:C7, Encryption: WPA3 SAE (CCMP), Associations: 1.
- Associated Stations:** A table showing a single entry: Network: Master "HaLow-R" (wlan1), MAC address: 00:C0:CA:B4:79:C5, Host: ?, Signal / Noise: -20 dBm, RX Rate / TX Rate: 32.5 Mbit/s, 8 MHz, MCS 7, Short GI, 32.5 Mbit/s, 8 MHz, MCS 7, Short GI.
- EasyMesh:** Disabled.



Note: When you reload the web page, please note whether you have changed the device IP!

How to Setup Client Mode

Please go to the “MORSE → HaLow Configuration” page.



Not secure | 192.168.100.1/cgi-bin/luci/

M Morse Micro STATUS SYSTEM MORSE NETWORK VPN STATISTICS HELP LOGOUT HALOW MODE: NONE

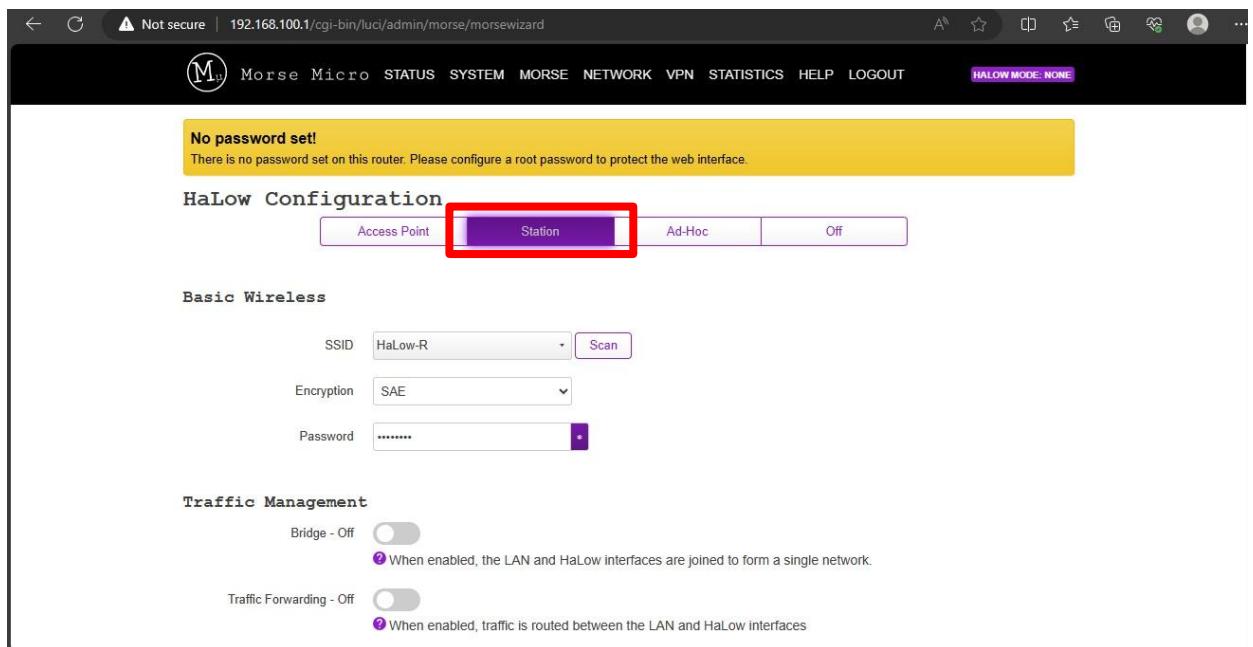
No password set! There is no password set on this router. Please configure a root password to protect the web interface.

Status System

Hostname: HaLow-R-b479c5
Model: ALFA Network HaLow-R R0A
Architecture: MediaTek MT7628AN ver:1 eco:2
Target Platform: ramips/mt76x8
Firmware Version: OpenWrt 22.03.5 Morse-2.2.2
Chip ID: MM6108_C1
Kernel Version: 5.10.176
Local Time: 2023-04-27 20:35:25
Uptime: 0h 7m 26s
Load Average: 0.81, 0.67, 0.34

192.168.100.1/cgi-bin/luci/admin/morse/morsewizard

Click “Station” page



Not secure | 192.168.100.1/cgi-bin/luci/admin/morse/morsewizard

M Morse Micro STATUS SYSTEM MORSE NETWORK VPN STATISTICS HELP LOGOUT HALOW MODE: NONE

No password set! There is no password set on this router. Please configure a root password to protect the web interface.

HaLow Configuration

Access Point Station Ad-Hoc Off

Basic Wireless

SSID: HaLow-R Scan
Encryption: SAE
Password:

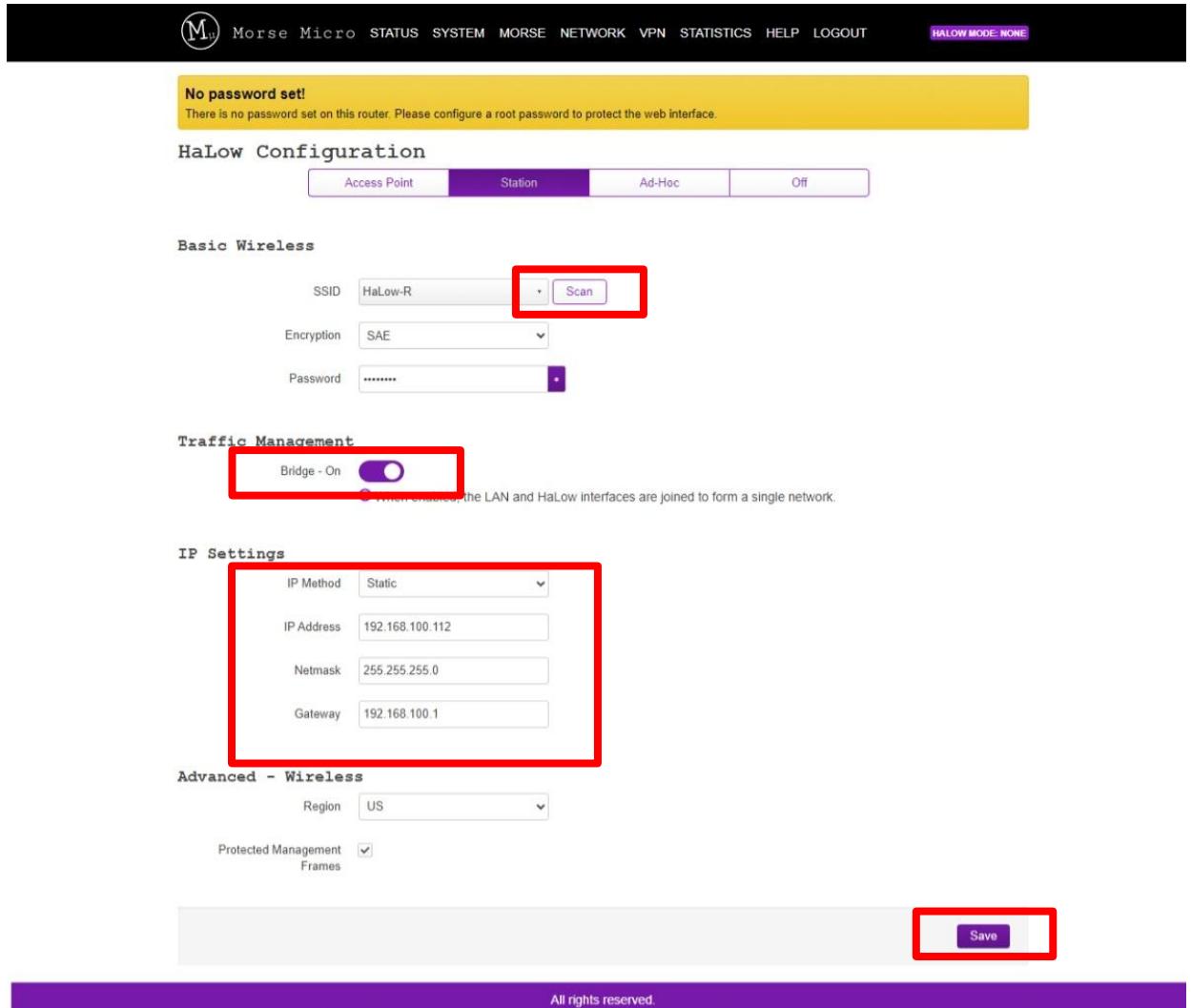
Traffic Management

Bridge - Off When enabled, the LAN and HaLow interfaces are joined to form a single network.

Traffic Forwarding - Off When enabled, traffic is routed between the LAN and HaLow interfaces.

How to Setup Client Mode

- 1).Click “Scan” button for AP scan, and fill the password if need.
- 2).Enable “Bridge” mode
- 3).IP Settings → “Static”, and fill the IP Address, Netmask, Gateway information.
- 4).After the setting is completed, please click the "Save" button.

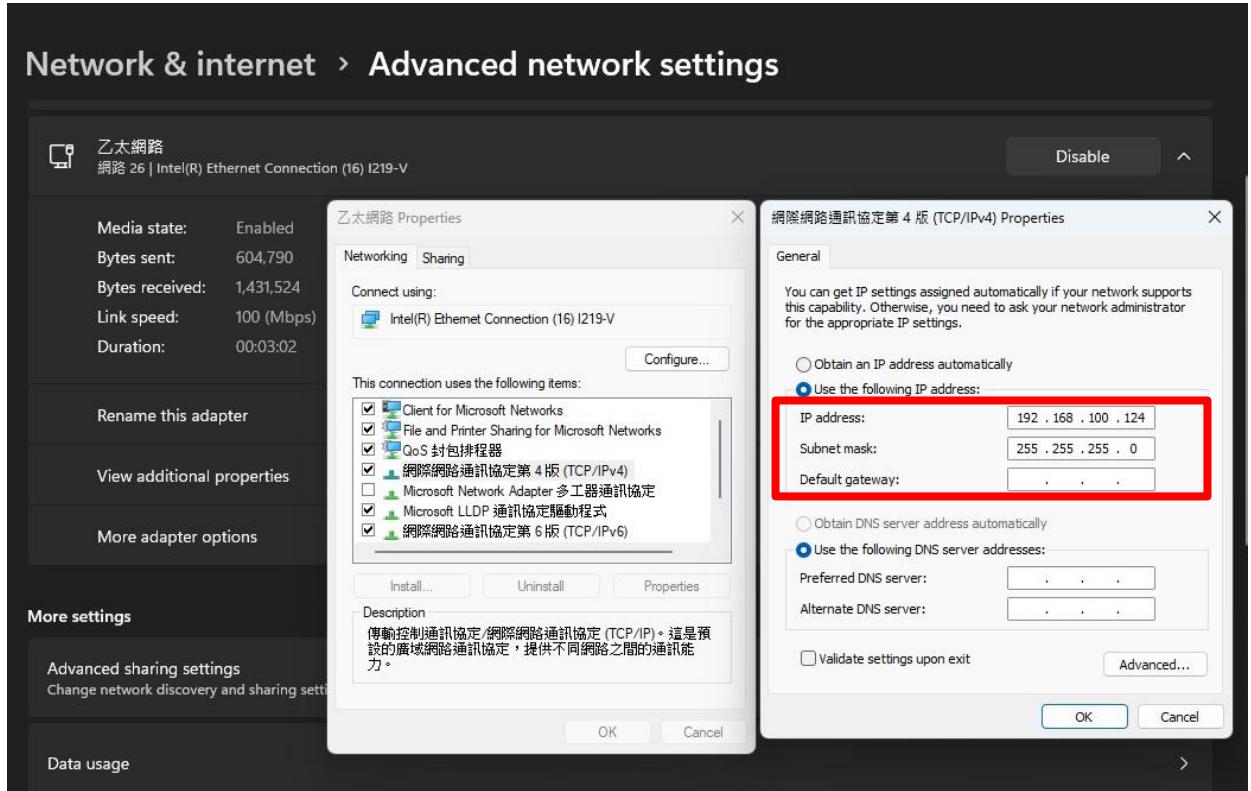


The screenshot shows the Morse Micro HaLow Configuration interface. The top navigation bar includes Morse Micro, STATUS, SYSTEM, MORSE, NETWORK, VPN, STATISTICS, HELP, and LOGOUT. A status message "HALOW MODE: NONE" is displayed. A yellow banner at the top states "No password set! There is no password set on this router. Please configure a root password to protect the web interface." The main configuration sections are:

- HaLow Configuration:** A tab bar with Access Point (selected), Station, Ad-Hoc, and Off. The "Station" tab is highlighted.
- Basic Wireless:** Fields for SSID (HaLow-R), Encryption (SAE), and Password (*****). The "Scan" button is highlighted with a red box.
- Traffic Management:** A section with a "Bridge - On" toggle switch, which is highlighted with a red box. A note below states: "When Bridge is On, the LAN and HaLow interfaces are joined to form a single network."
- IP Settings:** A section with IP Method (Static), IP Address (192.168.100.112), Netmask (255.255.255.0), and Gateway (192.168.100.1). This entire section is highlighted with a red box.
- Advanced - Wireless:** Fields for Region (US) and Protected Management Frames (checked). A note below states: "Protected Management Frames are used to prevent unauthorized access to the management interface."
- Save:** A blue "Save" button located at the bottom right of the configuration area, highlighted with a red box.

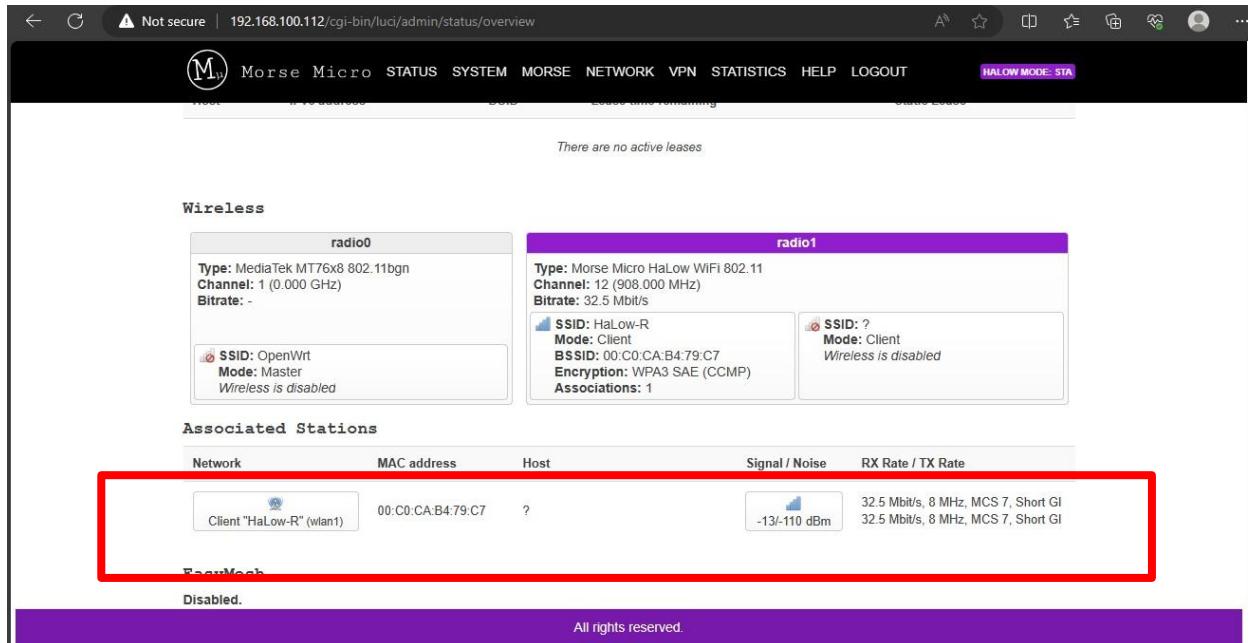
How to Setup Client Mode

Please change the IP Address of the computer to the same network segment as HaLow-R.



How to Setup Client Mode

When the Client connects to the AP, it will be shown on the “STATUS” page.



The screenshot shows the Morse Micro web interface at 192.168.100.112. The top navigation bar includes links for STATUS, SYSTEM, MORSE, NETWORK, VPN, STATISTICS, HELP, and LOGOUT. A purple banner at the top right says "HALOW MODE: STA".

Wireless

radio0	radio1
Type: MediaTek MT76x8 802.11bgn Channel: 1 (0.000 GHz) Bitrate: -	Type: Morse Micro HaLow WiFi 802.11 Channel: 12 (908.000 MHz) Bitrate: 32.5 Mbit/s
SSID: OpenWrt Mode: Master Wireless is disabled	SSID: ? Mode: Client BSSID: 00:C0:CA:B4:79:C7 Encryption: WPA3 SAE (CCMP) Associations: 1

Associated Stations

Network	MAC address	Host	Signal / Noise	RX Rate / TX Rate
Client "HaLow-R" (wlan1)	00:C0:CA:B4:79:C7	?	 -13/-110 dBm	32.5 Mbit/s, 8 MHz, MCS 7, Short GI 32.5 Mbit/s, 8 MHz, MCS 7, Short GI

EasyMesh
Disabled.

All rights reserved.



Note: When you reload the web page, please note whether you have changed the device IP!

How to Reset Default and Upload Firmware

Please go to the “SYSTEM” page.

The screenshot shows the 'SYSTEM' page of a Morse Micro router. The top navigation bar includes links for Morse Micro, STATUS, SYSTEM, MORSE, NETWORK, VPN, STATISTICS, HELP, and LOGOUT. A 'HALLOW MODE: AP' button is also present. A yellow banner at the top states 'No password set!' and advises users to configure a root password. The main content area is titled 'Flash operations' and contains several sections: 'Backup' (with 'Generate archive' button), 'Reset Defaults' (with 'Reset to defaults' and 'Perform reset' buttons, where 'Perform reset' is highlighted with a red arrow and the text 'Reset Default'), 'Restore' (with 'Upload archive...' button and a note about custom files), 'Save mtdblock contents' (with 'Choose mtdblock' dropdown set to 'u-boot' and 'Save mtdblock' button), and 'Flash new firmware image' (with 'Image' and 'Flash image...' buttons, where 'Flash image...' is highlighted with a red arrow and the text 'Upload Firmware').

Reset Default

Upload Firmware