Wi-Fi CERTIFIED™ Certificate

This certificate lists the features that have successfully completed Wi-Fi Alliance interoperability testing. Learn more: www.wi-fi.org/certification/programs

Certification ID: WFA133154

Product Info

Date of Certification	December 24, 2024
Company	Morse Micro
Product Name	HaLowLink 1
Product Model Variant	MM-HL1-EXT
Model Number	MM-HL1
Category	Routers
Sub-category	Access Point for Home or Small Office (Wireless Router)

Summary of Certifications

CLASSIFICATION	CERTIFICATION
Connectivity	2.4 GHz Spectrum Capabilities Sub-1 GHz Spectrum Capabilities Wi-Fi CERTIFIED HaLow™ Wi-Fi CERTIFIED™ b Wi-Fi CERTIFIED™ g Wi-Fi CERTIFIED™ n Wi-Fi Enhanced Open™ 2021-01
Optimization	WMM®
Security	Protected Management Frames WPA2™-Personal 2021-01 WPA3™-Personal 2024-10

Wi-Fi Components

Wi-Fi Component Operating System

OpenWrt Linux

Wi-Fi Component Firmware

2.6.13

RF Architecture

Bands Supported	Transmit (Tx)	Receive (Rx)
2.4 GHz	2	2

Wi-Fi Component Operating System

OpenWrt Linux

Wi-Fi Component Firmware

2.6.13

RF Architecture

Bands Supported	Transmit (Tx)	Receive (Rx)
Sub-1 GHz	1	1

Certifications

2.4 GHz Spectrum Capabilities

20 MHz Channel Width in 2.4 GHz
40 MHz Channel Width in 2.4 GHz

Protected Management Frames

Sub-1 GHz Spectrum Capabilities

1 MHz Channel Width in sub-1 GHz
2 MHz Channel Width in sub-1 GHz
4 MHz Channel Width in sub-1 GHz
8 MHz Channel Width in sub-1 GHz

WMM®

WPA2™-Personal 2021-01

WPA3™-Personal 2024-10

Wi-Fi CERTIFIED HaLow™

Wi-Fi CERTIFIED HaLow™ (continued)

A-MPDU Rx
A-MPDU Tx
Fragmentation Tx
Target Wake Time
Unified Scaling Factor

Wi-Fi CERTIFIED™ b

Wi-Fi CERTIFIED™ g

Wi-Fi CERTIFIED™ n

A-MPDU Tx

Wi-Fi Enhanced Open™ 2021-01

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OpenWrt Linux

Wi-Fi Component Firmware
2.6.13

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RF Architecture

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Certifications

2.4 GHz Spectrum Capabilities

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Protected Management Frames

Sub-1 GHz Spectrum Capabilities

1 MHz Channel Width in sub-1 GHz
2 MHz Channel Width in sub-1 GHz
4 MHz Channel Width in sub-1 GHz
8 MHz Channel Width in sub-1 GHz

WMM®

WPA2™-Personal 2021-01

WPA3™-Personal 2024-10

Wi-Fi CERTIFIED HaLow™

Wi-Fi CERTIFIED HaLow™ (continued)

A-MPDU Tx
A-MPDU Rx
Fragmentation Tx
MCS 3-7 Rx
NDP Probe Request Tx
Target Wake Time
Unified Scaling Factor

Wi-Fi CERTIFIED™ b

Wi-Fi CERTIFIED™ g

Wi-Fi CERTIFIED™ n

A-MPDU Tx
Short Guard Interval
STBC

Wi-Fi Enhanced Open™ 2021-01