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: WFA128045

Product Info

Date of Certification	December 15, 2023
Company	HAN Networks Co., Ltd.
Product Name	HAN Access Point
Product Model Variant	Add Feature 160M
Model Number	AP411
Category	Routers
Sub-category	Enterprise/Service Provider Access Point, Switch/Controller or Router

Summary of Certifications

CLASSIFICATION	CERTIFICATION
Access	Passpoint® Release 3
Connectivity	2.4 GHz Spectrum Capabilities 5 GHz Spectrum Capabilities 6 GHz Spectrum Capabilities Wi-Fi CERTIFIED 6® Wi-Fi CERTIFIED™ a Wi-Fi CERTIFIED™ ac Wi-Fi CERTIFIED™ b Wi-Fi CERTIFIED™ g Wi-Fi CERTIFIED™ n Wi-Fi Enhanced Open™ 2021-01
Optimization	WMM® WMM®-Power Save Wi-Fi Agile Multiband™
Security	Protected Management Frames WPA2™-Enterprise 2018-04 WPA2™-Personal 2021-01 WPA3™-Enterprise 2022-12 WPA3™-Personal 2022-06 WPA™-Enterprise

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CLASSIFICATION	CERTIFICATION
Security	WPA™-Personal
Spectrum & Regulatory Features	Spectrum & Regulatory

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Wi-Fi Components

Wi-Fi Component Operating System

Linux4.4

Wi-Fi Component Firmware

SPF.11.4

RF Architecture

Bands Supported	Transmit (Tx)	Receive (Rx)
2.4 GHz	4	4
5 GHz	8	8
6 GHz	4	4

Certifications

2.4 GHz Spectrum Capabilities

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

5 GHz Spectrum Capabilities

20 MHz Channel Width in 5 GHz
40 MHz Channel Width in 5 GHz
80 MHz Channel Width in 5 GHz

6 GHz Spectrum Capabilities

20 MHz Channel Width in 6 GHz
40 MHz Channel Width in 6 GHz
80 MHz Channel Width in 6 GHz
160 MHz Channel Width in 6 GHz

Passpoint® Release 3

Roaming Consortium Selection
Terms and Conditions
Venue Information

Protected Management Frames

Spectrum & Regulatory

802.11d
802.11h

WMM®

WMM®-Power Save

Unschedule auto PS

WPA2™-Enterprise 2018-04

EAP methods

WPA2™-Personal 2021-01

WPA3™-Enterprise 2022-12

EAP methods
192-bit security

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WPA3™-Personal 2022-06

WPA™-Enterprise

WPA™-Personal

Wi-Fi Agile Multiband™

Automatically populate BSS Transition candidate list
Cellular Data aware

Wi-Fi CERTIFIED 6®

4 antenna support
A-MPDU with A-MSDU
Basic Trigger frame in HE MU PPDU
Beamforming sounding
BSRP Trigger frame
Compressed Block Ack Rx (buffer size 256)
Compressed Block Ack Tx (buffer size 256)
DL MU-MIMO
DL OFDMA
Individual Target Wake Time
LDPC Rx
LDPC Tx
MCS 8-9 Rx
MCS 8-9 Tx
MCS 10-11 Rx
MCS 10-11 Tx
MU EDCA Parameter Set element
MU-BAR Trigger frame
MU-RTS Trigger frame
M-BSSID
Operating mode indication
SU beamformer
SU-MIMO
TXOP RTS Threshold

Wi-Fi CERTIFIED 6® (continued)

UL OFDMA
Wi-Fi 6E

Wi-Fi CERTIFIED™ a

Wi-Fi CERTIFIED™ ac

A-MPDU with A-MSDU
DL MU-MIMO
LDPC Rx
LDPC Tx
MCS 8 Rx
MCS 8-9 Rx
Short Guard Interval
STBC
SU beamformer

Wi-Fi CERTIFIED™ b

Wi-Fi CERTIFIED™ g

Wi-Fi CERTIFIED™ n

A-MPDU Tx
HT Duplicate Mode
OBSS on Extension Channel
Short Guard Interval
STBC

Wi-Fi Enhanced Open™ 2021-01