



# 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](http://www.wi-fi.org/certification/programs)

**Certification ID: WFA112341**

## Product Info

Date of Certification	June 23, 2021
Company	HFCL Limited
Product Name	Dual Band 2x2:2 Wi-Fi 6 Indoor AP with iCon8000 Controller
Product Model Variant	2021-05-25
Model Number	HFCL ion4xi AP with iCon8000 Controller
Category	Routers
Sub-category	Enterprise/Service Provider Access Point, Switch/Controller or Router

## Summary of Certifications

CLASSIFICATION	CERTIFICATION
Access	Passpoint® Release 2
Alternative topologies	Wi-Fi EasyMesh™
Network management	WMM® WMM®-Power Save Wi-Fi Agile Multiband™
Security	Protected Management Frames WPA2™-Enterprise 2018-04 WPA2™-Personal 2021-01 WPA3™-Enterprise 2020-02 WPA3™-Personal 2020-02 Wi-Fi Enhanced Open™ 2021-01
Wi-Fi (MAC/PHY)	2.4 GHz Spectrum Capabilities 5 GHz Spectrum Capabilities Spectrum & Regulatory Wi-Fi CERTIFIED 6® Wi-Fi CERTIFIED™ a Wi-Fi CERTIFIED™ ac Wi-Fi CERTIFIED™ b Wi-Fi CERTIFIED™ g

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# Wi-Fi CERTIFIED™ Certificate

Certification ID: WFA112341



Summary of Certifications (continued)		Page 2 of 6
CLASSIFICATION	CERTIFICATION	
Wi-Fi (MAC/PHY)	Wi-Fi CERTIFIED™ n	



# Wi-Fi CERTIFIED™ Certificate

Certification ID: WFA112341



Role: Access Point

Page 3 of 6

## Wi-Fi Components

### Wi-Fi Component Operating System

Linux 4.4

### Wi-Fi Component Firmware

WLAN.HK.2.2-02237-

QCAHKSWPL\_SILICONZ-1.367364.1 v1

### RF Architecture

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

## Certifications

### 2.4 GHz Spectrum Capabilities

20 MHz Channel Width in 2.4 GHz

40 MHz Channel Width in 2.4 GHz

### WMM®-Power Save

Legacy Power Save

Unschedule auto PS

### 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

### WPA2™-Enterprise 2018-04

EAP methods

### WPA2™-Personal 2021-01

### Passpoint® Release 2

Online Sign Up and Policy provisioning

### WPA3™-Enterprise 2020-02

EAP methods

192-bit security

Fast Transition OTA on WPA3-Enterprise

Fast Transition OTA on WPA3-Enterprise transition mode

Fast Transition OTDS on WPA3-Enterprise

### Protected Management Frames

### Spectrum & Regulatory

802.11d

802.11h

### WPA3™-Personal 2020-02

Fast Transition OTA on WPA3-Personal

Fast Transition OTA on WPA3-Personal transition mode

Fast Transition OTDS on WPA3-Personal

### WMM®

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# Wi-Fi CERTIFIED™ Certificate

Certification ID: WFA112341



Role: Access Point

Page 4 of 6

## Wi-Fi Agile Multiband™

Cellular Data aware  
Fast Transition OTA on WPA2-Enterprise  
Fast Transition OTA on WPA2-Personal

## Wi-Fi CERTIFIED 6®

A-MPDU with A-MSDU  
Basic Trigger frame in HE MU PPDU  
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 subfield in A-Control field  
Operating mode indication  
Operating mode UL MU Rx  
SU beamformer  
SU-MIMO  
TXOP RTS Threshold  
UL OFDMA

## Wi-Fi CERTIFIED™ a

## Wi-Fi CERTIFIED™ ac

## Wi-Fi CERTIFIED™ ac (continued)

RTS with BW Signaling  
Extended 5 GHz Channel Support  
A-MPDU with A-MSDU  
DL MU-MIMO  
LDPC Rx  
LDPC Tx  
MCS 8-9 Rx  
Short Guard Interval  
STBC  
SU beamformer

## Wi-Fi CERTIFIED™ b

## Wi-Fi CERTIFIED™ g

## Wi-Fi CERTIFIED™ n

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

## Wi-Fi EasyMesh™

Backhaul Link  
Backhaul in 2.4 GHz  
Backhaul in 5 GHz low band  
Backhaul in 5 GHz high band  
Backhaul over Ethernet  
Fronthaul Access Point  
Fronthaul in 2.4 GHz  
Fronthaul in 5 GHz low band  
Fronthaul in 5 GHz high band  
Agent-initiated Steering capability  
Client Capability Query

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Certification ID: WFA112341



Role: Access Point

Page 5 of 6

## Wi-Fi EasyMesh™ (continued)

Unassociated STA Link Metrics Reporting  
Backhaul onboarding with Wi-Fi Protected Setup pushbutton

## Wi-Fi Enhanced Open™ 2021-01

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# Wi-Fi CERTIFIED™ Certificate

Certification ID: WFA112341



Role: Controller

Page 6 of 6

## Wi-Fi Components

### Wi-Fi Component Operating System

Linux 4.4

## Certifications

Wi-Fi EasyMesh™

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