# 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 ID: WFA120176

## Product Info

| | |
|---|---|
| **Date of Certification** | June 15, 2022 |
| **Company** | Cisco Systems |
| **Product Name** | Cisco Catalyst 9800 Cloud Wireless Controller and Cisco CW9164I AP |
| **Product Model Variant** | Cisco IOS XE: 17.9 |
| **Model Number** | C9800-CL and CW9164I |
| **Category** | Routers |
| **Sub-category** | Enterprise/Service Provider Access Point, Switch/Controller or Router |

## Summary of Certifications

| CLASSIFICATION | CERTIFICATION |
|---|---|
| Network management | WMM®<br>WMM®-Power Save<br>Wi-Fi Agile Multiband™ |
| Security | Protected Management Frames<br>WPA2™-Enterprise 2018-04<br>WPA2™-Personal 2021-01<br>WPA3™-Enterprise 2020-02<br>WPA3™-Personal 2020-12<br>Wi-Fi Enhanced Open™ 2021-01 |
| Wi-Fi (MAC/PHY) | 2.4 GHz Spectrum Capabilities<br>5 GHz Spectrum Capabilities<br>6 GHz Spectrum Capabilities<br>Spectrum & Regulatory<br>Wi-Fi CERTIFIED 6®<br>Wi-Fi CERTIFIED™ a<br>Wi-Fi CERTIFIED™ ac<br>Wi-Fi CERTIFIED™ b<br>Wi-Fi CERTIFIED™ g<br>Wi-Fi CERTIFIED™ n |

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## Wi-Fi Components

### Wi-Fi Component Operating System
Linux, Version: 17.9

### Wi-Fi Component Firmware
17.9

### RF Architecture

| Bands Supported | Transmit (Tx) | Receive (Rx) |
|---|---|---|
| 2.4 GHz | 2 | 2 |
| 5 GHz | 4 | 4 |
| 6 GHz | 4 | 4 |

## Certifications

### 2.4 GHz Spectrum Capabilities

20 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
160 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

### Protected Management Frames

### Spectrum & Regulatory

802.11d

### Spectrum & Regulatory (continued)

802.11h

### WMM®

### WMM®-Power Save

Legacy Power Save
Unschedule auto PS

### WPA2™-Enterprise 2018-04

EAP methods

### WPA2™-Personal 2021-01

### WPA3™-Enterprise 2020-02

EAP methods
192-bit security

### WPA3™-Personal 2020-12

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### Wi-Fi Agile Multiband™

Automatically populate BSS Transition candidate list
Fast Transition OTA on WPA2-Enterprise
Fast Transition OTA on WPA2-Personal

### Wi-Fi CERTIFIED 6®

4 antenna support
A-MPDU with A-MSDU
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-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
UL OFDMA
Wi-Fi 6E
    Co-located BSS
Wi-Fi 6 Release 2 features
    UL MU-MIMO
    UL MU Control

### Wi-Fi CERTIFIED 6® (continued)

UL Extended Range
Target Wake Time information frames
Extended sleep
M-BSSID control frames

### Wi-Fi CERTIFIED™ a

### Wi-Fi CERTIFIED™ ac

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 Enhanced Open™ 2021-01