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: WFA131648

Product Info

Date of Certification	September 27, 2024
Company	Cisco Systems
Product Name	Cisco Catalyst 9800-L Wireless Controller and Cisco CW9176 AP
Product Model Variant	C9800-L and CW9176D1, Cisco IOS XE: 17.15
Model Number	C9800-L and CW9176
Category	Routers
Sub-category	Enterprise/Service Provider Access Point, Switch/Controller or Router

Summary of Certifications

CLASSIFICATION	CERTIFICATION
Connectivity	2.4 GHz Spectrum Capabilities 5 GHz Spectrum Capabilities 6 GHz Spectrum Capabilities Wi-Fi CERTIFIED 6® Release 2 Wi-Fi CERTIFIED 7™ Wi-Fi CERTIFIED™ a Wi-Fi CERTIFIED™ ac Wi-Fi CERTIFIED™ b Wi-Fi CERTIFIED™ g Wi-Fi CERTIFIED™ n Wi-Fi Enhanced Open™ 2023-12
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 2023-12

CLASSIFICATION	CERTIFICATION
Spectrum & Regulatory Features	Spectrum & Regulatory

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Wi-Fi Components

Wi-Fi Component Operating System

Linux, Version: 17.15

Wi-Fi Component Firmware

17.15

RF Architecture

Bands Supported	Transmit (Tx)	Receive (Rx)
2.4 GHz	4	4
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

Standard power operation under AFC
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
320 MHz channel width in 6 GHz

Protected Management Frames

Spectrum & Regulatory

Spectrum & Regulatory (continued)

802.11d
802.11h

WMM®

WMM®-Power Save

Legacy Power Save
Unschedule auto PS

WPA2™-Enterprise 2018-04

EAP methods

WPA2™-Personal 2021-01

WPA3™-Enterprise 2022-12

EAP methods
192-bit security
Fast Transition OTA on WPA3-Enterprise

WPA3™-Enterprise 2022-12 (continued)

Fast Transition OTA on WPA3-Enterprise transition mode

Fast Transition OTDS on WPA3-Enterprise

WPA3™-Personal 2023-12

AKM 24

AKM 25

Fast Transition OTA on WPA3-Personal

Fast Transition OTA on WPA3-Personal transition mode

Fast Transition OTDS on WPA3-Personal

Beacon Protection

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® Release 2

4 antenna support

A-MPDU with A-MSDU

Beamforming sounding

BSRP Trigger frame

Co-located BSS

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

Wi-Fi CERTIFIED 6® Release 2 (continued)

MCS 10-11 Rx

MCS 10-11 Tx

MU EDCA Parameter Set element

MU-BAR Trigger frame

MU-RTS Trigger frame

Operating mode indication

SU beamformer

SU-MIMO

UL OFDMA

Wi-Fi 6E

Multiple M-BSSID

Wi-Fi 6 Release 2 features

UL MU-MIMO

UL MU Control

UL Extended Range

Target Wake Time information frames

Extended sleep

Dynamic MU SMPS

Wi-Fi CERTIFIED 7™

A-MPDU with A-MSDU

Beamforming sounding

BSRP Trigger frame

BSS critical update

Compressed Block Ack Rx (buffer size 256)

Compressed Block Ack Tx (buffer size 256)

Compressed Block Ack Rx (buffer size 512)

Compressed Block Ack Tx (buffer size 512)

DL MU-MIMO

DL OFDMA

Dynamic MU SMPS

EMLSR (Enhanced Multilink Single-Radio)

LDPC Rx

LDPC Tx

Wi-Fi CERTIFIED 7™ (continued)

MCS 8-9 Rx
MCS 8-9 Tx
MCS 10-11 Rx
MCS 10-11 Tx
MCS 12-13 Rx
MCS 12-13 Tx
Multi-RU
MU-RTS Trigger frame
Operating mode indication
    Operating mode indication for 320 MHz
Static puncturing
STR (Simultaneous Transmit and Receive)
SU-MIMO
Triggered uplink access optimization
UL MU-MIMO
UL OFDMA

Wi-Fi CERTIFIED™ a

Wi-Fi CERTIFIED™ ac

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

Wi-Fi CERTIFIED™ b

Wi-Fi CERTIFIED™ g

Wi-Fi CERTIFIED™ n

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

Wi-Fi Enhanced Open™ 2023-12

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