



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

# **Certification ID: WFA127787**

# **Product Info**

Date of Certification January 5, 2024

**Company** Broadcom Corporation

Product Name BCM4398

Product Model Variant Wi-Fi 7

Model Number BCM4398

**Category** Other

**Sub-category** Embedded Module

# **Summary of Certifications**

CI	ASSIFICATION	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™ b
Wi-Fi CERTIFIED™ g
Wi-Fi CERTIFIED™ n

Wi-Fi Enhanced Open™ 2023-12

**Optimization** WMM®

Wi-Fi Agile Multiband™ Wi-Fi QoS Management™

**Security** Protected Management Frames

WPA2<sup>™</sup>-Enterprise 2018-04 WPA2<sup>™</sup>-Personal 2021-01 WPA3<sup>™</sup>-Enterprise 2022-12 WPA3<sup>™</sup>-Personal 2023-12

WPA™-Enterprise WPA™-Personal





**Certification ID: WFA127787** 

Summary	of Cer	tificatio	ns (con	tinued)
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Page 2 of 5

**CLASSIFICATION** 

CERTIFICATION

Spectrum & Regulatory

Spectrum & Regulatory

**Features** 



**Certification ID: WFA127787** 



Role: Station Page 3 of 5

# Wi-Fi Components

**Wi-Fi Component Operating System** 

Linux

Wi-Fi Component Firmware

24.10.691.9-r-1044003:01-b4951bab

#### **RF Architecture**

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

#### 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

320 MHz channel width in 6 GHz

# **Protected Management Frames**

# **Spectrum & Regulatory**

# Spectrum & Regulatory (continued)

802.11d 802.11h

#### **WMM®**

# WPA2™-Enterprise 2018-04

EAP methods

**EAP TLS** 

**EAP TTLS** 

PEAPv0

PEAPv1

# WPA2™-Personal 2021-01

# WPA3™-Enterprise 2022-12

EAP methods

EAP TLS

**EAP TTLS** 

PEAPv0

PEAPv1



**Certification ID: WFA127787** 



Role: Station Page 4 of 5

#### WPA3™-Enterprise 2022-12 (continued)

Fast Transition OTA on WPA3-Enterprise

Fast Transition OTA on WPA3-Enterprise transition mode

Fast Transition OTDS on WPA3-Enterprise

Server Certificate Validation

#### 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** 

#### **WPA™-Enterprise**

#### **WPA™-Personal**

# Wi-Fi Agile Multiband™

ANQP

ANQP-based Neighbor report

Beacon Report Measurement Active Mode

Beacon Report Measurement Passive Mode

**BTM Query** 

Cellular Data capable

Fast Transition OTA on WPA2-Personal

Fast Transition OTA on WPA2-Enterprise

#### Wi-Fi CERTIFIED 6® Release 2 (continued)

Compressed Block Ack Rx (buffer size 256)

Compressed Block Ack Tx (buffer size 256)

DL MU-MIMO

DL Mu PPDU multi-tone

HE NDP

LDPC Tx

LDPC Rx

Individual Target Wake Time

MCS 10-11 Rx

MCS 10-11 Tx

MCS 8-9 Rx

MCS 8-9 Tx

MU EDCA Parameter Set element

MU-BAR Trigger frame

MU-RTS Trigger frame

OM Control field Tx

Operating Mode indication

SU beamformee

SU-MIMO

UL OFDMA

UL TB PPDU multi-tone

Wi-Fi 6E

Multiple M-BSSID

Wi-Fi 6 Release 2 features

UL MU-MIMO

UL MU Control

**UL Extended Range** 

M-BSSID control frames

Preamble Puncturing

# Wi-Fi CERTIFIED 6® Release 2

A-MPDU with A-MSDU

Beamforming sounding

**BSRP** Trigger frame

#### Wi-Fi CERTIFIED 7™

Advertised TID-to-link mapping

A-MPDU with A-MSDU

Beamforming sounding





**Certification ID: WFA127787** 

Role: Station Page 5 of 5

# Wi-Fi CERTIFIED 7™ (continued)

BSS critical update

Compressed Block Ack Rx (buffer size 256)

Compressed Block Ack Tx (buffer size 256)

DL MU-MIMO

EMLSR (Enhanced Multilink Single-Radio)

LDPC Rx

LDPC Tx

Load Balancing in MLO

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-link reconfiguration - AP removal

Multi-link reconfiguration - AP restart

Multi-RU

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

Extended 5 GHz Channel Support

A-MPDU with A-MSDU

DL MU-MIMO

LDPC Rx

MCS 8 Rx

# Wi-Fi CERTIFIED™ ac (continued)

MCS 8-9 Rx

Short Guard Interval

LDPC Tx

SU beamformee

# Wi-Fi CERTIFIED™ b

#### Wi-Fi CERTIFIED™ g

# Wi-Fi CERTIFIED™ n

A-MPDU Tx

**OBSS** on Extension Channel

Power Management

Short Guard Interval

# Wi-Fi Enhanced Open™ 2023-12

#### Wi-Fi QoS Management™

Default DSCP to UP mapping

DSCP QoS Map

**DSCP Policy** 

Mirrored Stream Classification Service

MSCS setup at association

Stream Classification Service

SCS with QoS characteristics