



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

**Certification ID: WFA127693**

## Product Info

Date of Certification	January 5, 2024
Company	Qualcomm
Product Name	Qualcomm FastConnect 7800 Mobile Connectivity system
Product Model Variant	Wi-Fi 7
Model Number	WCN7850
Category	Computers & Accessories
Sub-category	Laptop Computer

## 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® Wi-Fi Agile Multiband™
Security	Protected Management Frames WPA2™-Enterprise 2018-04 WPA2™-Personal 2021-01 WPA3™-Enterprise 2022-12 WPA3™-Personal 2023-12 WPA™-Enterprise WPA™-Personal



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## Summary of Certifications (continued)

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### CLASSIFICATION

### CERTIFICATION

Spectrum & Regulatory  
Features

Spectrum & Regulatory



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Role: Station

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### Wi-Fi Components

#### Wi-Fi Component Operating System

Ubuntu 20.04 Kernel 5.15.24+

#### Wi-Fi Component Firmware

Host SW:5.2.1.73H, FW:1.1.0.4.112.0

#### 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

#### 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

192-bit security

192-bit security RSA 3K with the  
TLS\_ECDHE\_RSA\_WITH\_AES\_256\_GCM\_SHA384  
cipher suite

Server Certificate Validation

#### WPA3™-Personal 2023-12



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## WPA3™-Personal 2023-12 (continued)

AKM 24  
AKM 25  
Beacon Protection  
Operating Channel Validation  
Privacy Extensions  
Active Scan  
ANQP

## WPA™-Enterprise

## WPA™-Personal

## Wi-Fi Agile Multiband™

ANQP  
Beacon Report Measurement Active Mode  
Beacon Report Measurement Passive Mode  
Cellular Data capable  
Fast Transition OTA on WPA2-Personal

## Wi-Fi CERTIFIED 6® Release 2

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 MU PPDU multi-tone  
HE NDP  
LDPC Tx  
LDPC Rx  
Individual Target Wake Time  
MCS 10-11 Rx  
MCS 10-11 Tx

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

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  
OM subfield in A-Control field  
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  
Target Wake Time information frames  
Broadcast Target Wake Time  
Extended sleep time  
M-BSSID control frames  
Preamble Puncturing

## Wi-Fi CERTIFIED 7™

Advertised TID-to-link mapping  
A-MPDU with A-MSDU  
Beamforming sounding  
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



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### Wi-Fi CERTIFIED 7™ (continued)

EMLSR (Enhanced Multilink Single-Radio)  
EPCS (Emergency Preparedness Communications Services) priority access  
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  
RTS with BW Signaling  
A-MPDU with A-MSDU  
DL MU-MIMO  
LDPC Rx  
MCS 8 Rx  
MCS 8-9 Rx

### Wi-Fi CERTIFIED™ ac (continued)

Short Guard Interval  
STBC  
LDPC Tx  
SU beamformee

### 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