



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: 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
Spectrum & Regulatory Features	Spectrum & Regulatory



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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

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
MCS 8-9 Rx
MCS 8-9 Tx
MU EDCA Parameter Set element
MU-BAR Trigger frame

Wi-Fi CERTIFIED 6® Release 2 (continued)

MU-RTS Trigger frame
Operating mode control field
Operating mode 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
EMLSR (Enhanced Multilink Single-Radio)
EPCS (Emergency Preparedness Communications Services) priority access
LDPC Rx



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Wi-Fi CERTIFIED 7™ (continued)

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
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