



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: WFA109957

Product Info

Date of Certification	January 8, 2021
Company	Qualcomm
Product Name	Qualcomm Technologies 2x2 Wi-Fi 6e SoC for Mobile and Compute
Product Model Variant	Wi-Fi 6E
Model Number	CA-WIFI6ESTA-50
Category	Other
Sub-category	Reference Design

Summary of Certifications

CLASSIFICATION	CERTIFICATION
Connectivity	2.4 GHz Spectrum Capabilities 5 GHz Spectrum Capabilities 6 GHz Spectrum Capabilities Wi-Fi CERTIFIED 6® Wi-Fi CERTIFIED™ a Wi-Fi CERTIFIED™ ac Wi-Fi CERTIFIED™ b Wi-Fi CERTIFIED™ g Wi-Fi CERTIFIED™ n Wi-Fi Enhanced Open™ 2020-02
Optimization	WMM® Wi-Fi Agile Multiband™
Security	Protected Management Frames WPA2™-Enterprise 2018-04 WPA2™-Personal 2020-02 WPA3™-Enterprise 2020-02 WPA3™-Personal 2020-02
Spectrum & Regulatory Features	Spectrum & Regulatory



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Role: Station

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Wi-Fi Components

Wi-Fi Component Operating System

Linux, version:Ubuntu, linux 4.4.83

Wi-Fi Component Firmware

WCN6850.LNX.0.1

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
40 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

Spectrum & Regulatory (continued)

802.11h

WMM®

WPA2™-Enterprise 2018-04

EAP methods
EAP TLS
EAP TTLS
PEAPv0
PEAPv1

WPA2™-Personal 2020-02

WPA3™-Enterprise 2020-02

EAP methods
EAP TLS
EAP TTLS
PEAPv0
PEAPv1
192-bit security



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WPA3™-Enterprise 2020-02 (continued)

192-bit security RSA 3K with the
TLS_DHE_RSA_WITH_AES_256_GCM_SHA384 cipher
suite

192-bit security RSA 3K with the
TLS_ECDHE_RSA_WITH_AES_256_GCM_SHA384
cipher suite

WPA3™-Personal 2020-02

Wi-Fi Agile Multiband™

ANQP
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®

A-MPDU with A-MSDU
BSRP Trigger frame
Compressed Block Ack Rx (buffer size 256)
Compressed Block Ack Tx (buffer size 256)
DL Mu PPDU multi-tone
DL MU-MIMO
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 EDCA Parameter Set element
MU-BAR Trigger frame
MU-RTS Trigger frame

Wi-Fi CERTIFIED 6® (continued)

OM Control field Tx
OM subfield in A-Control field
Operating Mode indication
SU beamformee
UL OFDMA
UL TB PPDU multi-tone
Wi-Fi 6E

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 8-9 Rx
Short Guard Interval
STBC
LDPC Tx
SU beamformee

Wi-Fi CERTIFIED™ b

Wi-Fi CERTIFIED™ g

Wi-Fi CERTIFIED™ n

STBC
A-MPDU Tx
HT Duplicate Mode
OBSS on Extension Channel
Power Management



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Wi-Fi CERTIFIED™ n (continued)

Short Guard Interval

Wi-Fi Enhanced Open™ 2020-02