



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 December 1, 2021

Company Qualcomm

Product Name Qualcomm Technologies 2x2 Wi-Fi 6e SoC for Mobile and Compute

Product Model Variant QoS update

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 Capabilities6 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™ 2021-01

Optimization WMM®

Wi-Fi Agile Multiband™

Wi-Fi Optimized Connectivity™ 2020

Wi-Fi QoS Management™

Security Protected Management Frames

WPA2[™]-Enterprise 2018-04 WPA2[™]-Personal 2021-01 WPA3[™]-Enterprise 2020-02 WPA3[™]-Personal 2020-02





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Summary of Certifications (continued)

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CLASSIFICATION

CERTIFICATION

Spectrum & Regulatory

Spectrum & Regulatory

Features



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Wi-Fi Components

Wi-Fi Component Operating System

Linux, version: Ubuntu, linux 4.4.83

Wi-Fi Component Firmware

01.00.073.1-1

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

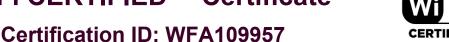
WPA2™-Personal 2021-01

WPA3™-Enterprise 2020-02

EAP TLS
EAP TTLS
PEAPv0
PEAPv1
192-bit security

EAP methods







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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®

BSRP Trigger frame

DL Mu PPDU multi-tone

DL MU-MIMO

MU EDCA Parameter Set element

MU-BAR Trigger frame

MU-RTS Trigger frame

SU beamformee

UL OFDMA

UL TB PPDU multi-tone

Wi-Fi CERTIFIED™ a

Wi-Fi CERTIFIED™ ac

Extended 5 GHz Channel Support

Wi-Fi CERTIFIED™ ac (continued)

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

Short Guard Interval

Wi-Fi Enhanced Open™ 2021-01

Wi-Fi Optimized Connectivity™ 2020

Fast Transition OTA on WPA2-Enterprise

Wi-Fi QoS Management™

Default DSCP to UP mapping

DSCP QoS Map

DSCP Policy





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Wi-Fi QoS Management™ (continued)

Mirrored Stream Classification Service

MSCS setup at association

Stream Classification Service