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: WFA93398

Product Info

Date of Certification	January 30, 2020
Company	Oppo
Product Name	Mobile Phone
Product Model Variant	2020-01-30 (WFA93398 - merged)
Model Number	CPH2023
Category	Phones
Sub-category	Smartphone

Summary of Certifications

CLASSIFICATION	CERTIFICATION
Network management	WMM® Wi-Fi Agile Multiband™
Security	Protected Management Frames WPA2™-Enterprise 2018-04 WPA2™-Personal 2018-04 WPA3™-Enterprise 2018-04 WPA3™-Personal 2019-08
Wi-Fi (MAC/PHY)	2.4 GHz Spectrum Capabilities 5 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 CERTIFIED™ Certificate

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Wi-Fi Components

Wi-Fi Component Operating System

Android, version:10

Wi-Fi Component Firmware

1.0.1.0.247.0

RF Architecture

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

Protected Management Frames

WMM®

WPA2™-Personal 2018-04

Wi-Fi CERTIFIED™ a

Wi-Fi CERTIFIED™ ac

A-MPDU with A-MSDU
LDPC Rx
LDPC Tx
MCS 8-9 Rx

Wi-Fi CERTIFIED™ ac (continued)

Short Guard Interval
STBC
SU beamformer

Wi-Fi CERTIFIED™ b

Wi-Fi CERTIFIED™ g

Wi-Fi CERTIFIED™ n

OBSS on Extension Channel
Short Guard Interval
STBC
A-MPDU Tx

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Wi-Fi Component Operating System

Android, version:Android 10

Wi-Fi Component Firmware

1.0.1.0.247.0

RF Architecture

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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

Protected Management Frames

WMM®

WPA2™-Enterprise 2018-04

EAP methods
    EAP AKA
    EAP AKA Prime
    EAP SIM
    EAP TLS
    EAP TTLS
    PEAPv0
    PEAPv1

WPA2™-Personal 2018-04

WPA3™-Enterprise 2018-04

EAP methods
    EAP AKA
    EAP AKA Prime
    EAP SIM
    EAP TLS
    EAP TTLS
    PEAPv0
    PEAPv1

WPA3™-Personal 2019-08

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

Wi-Fi CERTIFIED 6®

Wi-Fi CERTIFIED™ Certificate

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Wi-Fi CERTIFIED 6® (continued)

A-MPDU with A-MSDU

BSRP Trigger frame

Compressed Block Ack Rx (buffer size 256)

Compressed Block Ack Tx (buffer size 256)

DL MU-MIMO

HE NDP

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

M-BSSID

Operating mode control field

Operating mode subfield in A-Control field

Operating mode indication

SU beamformee

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 8-9 Rx

Short Guard Interval

STBC

LDPC Tx

Wi-Fi CERTIFIED™ ac (continued)

SU beamformee

Wi-Fi CERTIFIED™ b

Wi-Fi CERTIFIED™ g

Wi-Fi CERTIFIED™ n

STBC

A-MPDU Tx

OBSS on Extension Channel

Short Guard Interval