



This certificate lists the features that have successfully completed Wi-Fi Alliance interoperability testing. Learn more: www.wi-fi.org

# **Certification ID: WFA133507**

# **Product Info**

**Date of Certification** April 11, 2025

**Company** Zebra Technologies

Product Name EM45

Product Model Variant 2025-31-01

Model Number EM45

**Category** Phones

**Sub-category** Smartphone

# **Summary of Certifications**

CLASSIFICATION CERTIFICATION

Access Passpoint® Release 3

Alternative topologies Wi-Fi Direct®

Network management WMM®

WMM®-Admission Control

WMM®-Power Save Wi-Fi Agile Multiband™

Wi-Fi Optimized Connectivity™ 2020

Wi-Fi QoS Management™

Performance Voice-Enterprise

**Security** Protected Management Frames

WPA2<sup>™</sup>-Enterprise 2018-04 WPA2<sup>™</sup>-Personal 2021-01 WPA3<sup>™</sup>-Enterprise 2022-12 WPA3<sup>™</sup>-Personal 2022-06 Wi-Fi Enhanced Open<sup>™</sup> 2021-01

Wi-Fi (MAC/PHY) 2.4 GHz Spectrum Capabilities

5 GHz Spectrum Capabilities6 GHz Spectrum Capabilities



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# Summary of Certifications (continued) CLASSIFICATION Wi-Fi (MAC/PHY) Spectrum & Regulatory Wi-Fi CERTIFIED 6® Release 2 Wi-Fi CERTIFIED™ a Wi-Fi CERTIFIED™ ac Wi-Fi CERTIFIED™ b Wi-Fi CERTIFIED™ g Wi-Fi CERTIFIED™ n



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# Wi-Fi Components

#### Wi-Fi Component Operating System

Android, version:14

# Wi-Fi Component Firmware

1.1.2.0.1317.xx

#### **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

#### Passpoint® Release 3

Display and input method Display of HS2.0 indication

NAI Home Realm Query element

# Passpoint® Release 3 (continued)

Operating Class Indication

SIM credentials

**USIM Credentials** 

Network Icon support

Network Information in network selection

Online Sign Up and Policy provisioning

Fast Transition OTA on WPA2-Enterprise

ANQP-element for OSU provider selection

Online Sign Up using single SSID

Venue Information

Terms and Conditions

Roaming Consortium Selection

# **Protected Management Frames**

# **Spectrum & Regulatory**

802.11h

# Voice-Enterprise

**WMM®** 



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#### **WMM®-Admission Control**

#### **WMM®-Power Save**

Legacy Power Save Unschedule auto PS

#### WPA2™-Enterprise 2018-04

EAP methods

EAP AKA

**EAP AKA Prime** 

**EAP SIM** 

**EAP TLS** 

**EAP TTLS** 

PEAPv0

PEAPv1

# WPA2™-Personal 2021-01

# WPA3™-Enterprise 2022-12

EAP methods

EAP AKA

**EAP AKA Prime** 

EAP SIM

**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

Fast Transition OTA on WPA3-Enterprise

Fast Transition OTA on WPA3-Enterprise transition mode

Fast Transition OTDS on WPA3-Enterprise

Server Certificate Validation

#### WPA3™-Personal 2022-06

Fast Transition OTA on WPA3-Personal

Fast Transition OTA on WPA3-Personal transition mode

Fast Transition OTDS on WPA3-Personal

#### Wi-Fi Agile Multiband™

**ANQP** 

ANQP-based Neighbor report

Beacon Report Measurement Active Mode

Beacon Report Measurement Passive Mode

**BTM Query** 

Fast Transition OTA on WPA2-Personal

Fast Transition OTA on WPA2-Enterprise

#### 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

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

MU-RTS Trigger frame

M-BSSID

Operating mode control field



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

Operating mode subfield in A-Control field

Operating mode indication

SU beamformee

SU-MIMO

**UL OFDMA** 

Wi-Fi 6E

Multiple M-BSSID

Wi-Fi 6 Release 2 features

**UL MU-MIMO** 

**UL MU Control** 

Target Wake Time information frames

**Broadcast Target Wake Time** 

M-BSSID control frames

#### 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

# Wi-Fi CERTIFIED™ n (continued)

A-MPDU Tx

**OBSS on Extension Channel** 

Short Guard Interval

STBC

# Wi-Fi Direct®

# Wi-Fi Enhanced Open™ 2021-01

# Wi-Fi Optimized Connectivity™ 2020

Active Scan

Fast Transition OTA on WPA2-Enterprise

Pushbutton

Probe Deferral and Suppression

#### Wi-Fi QoS Management™

Default DSCP to UP mapping

DSCP QoS Map

Mirrored Stream Classification Service

MSCS setup at association

Stream Classification Service