



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

**Certification ID: WFA130548** 

## **Product Info**

**Date of Certification** March 27, 2024

**Company** Zebra Technologies

Product Name TC53E

Product Model Variant 2024-03-26

Model Number TC53E

**Category** Phones

**Sub-category** Smartphone

## **Summary of Certifications**

CLASSIFICATION CERTIFICATION

Access Passpoint® Release 3

**Applications & Services** Voice-Enterprise

**Connectivity** 2.4 GHz Spectrum Capabilities

5 GHz Spectrum Capabilities6 GHz Spectrum CapabilitiesWi-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

Wi-Fi Enhanced Open™ 2021-01

**Optimization** WMM®

WMM®-Admission Control

WMM®-Power Save Wi-Fi Agile Multiband™

Wi-Fi Optimized Connectivity™ 2020

Wi-Fi QoS Management™

Security Protected Management Frames





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Summary of Certifications (continued)		Page 2 of 5
CLASSIFICATION	CERTIFICATION	
Security	WPA2 <sup>™</sup> -Enterprise 2018-04 WPA2 <sup>™</sup> -Personal 2021-01 WPA3 <sup>™</sup> -Enterprise 2022-12 WPA3 <sup>™</sup> -Personal 2022-06	
Spectrum & Regulatory Features	Spectrum & Regulatory	



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## Wi-Fi Components

**Wi-Fi Component Operating System** 

Android 13

Wi-Fi Component Firmware

1.1.5.0.319.3

#### **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

### Passpoint® Release 3 (continued)

Fast Transition OTA on WPA2-Enterprise

NAI Home Realm Query element

Network Information in network selection

Operating Class Indication

Roaming Consortium Selection

SIM credentials

Terms and Conditions

Private and secure terms and conditions

**USIM** Credentials

Venue Information

Private and secure Venue Information

#### 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**

802.11d

802.11h

### Passpoint® Release 3

ANQP-element for OSU provider selection

Display and input method

Display of HS2.0 indication

## 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

SAE-Public Key

Operating Channel Validation

### Wi-Fi Agile Multiband™

**ANQP** 

ANQP-based Neighbor report

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® 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





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### 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** 

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

A-MPDU Tx

**OBSS** on Extension Channel

Short Guard Interval

STBC

### Wi-Fi Enhanced Open™ 2021-01

## Wi-Fi Optimized Connectivity™ 2020

Active Scan

Fast Transition OTA on WPA2-Enterprise

Pushbutton

### Wi-Fi QoS Management™

Default DSCP to UP mapping

DSCP QoS Map

**DSCP Policy** 

Mirrored Stream Classification Service

Stream Classification Service