



# 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](http://www.wi-fi.org/certification/programs)

**Certification ID: WFA132232**

## Product Info

<b>Date of Certification</b>	August 13, 2024
<b>Company</b>	Elo Touch Solutions, Inc.
<b>Product Name</b>	Mobile Computer
<b>Product Model Variant</b>	EMC-M51
<b>Model Number</b>	EMC-M51
<b>Category</b>	Phones
<b>Sub-category</b>	Smartphone

## Summary of Certifications

CLASSIFICATION	CERTIFICATION
<b>Connectivity</b>	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™ 2023-12
<b>Optimization</b>	WMM® Wi-Fi Agile Multiband™
<b>Security</b>	Protected Management Frames WPA2™-Enterprise 2018-04 WPA2™-Personal 2021-01 WPA3™-Enterprise 2022-12 WPA3™-Personal 2023-12



# Wi-Fi CERTIFIED™ Certificate

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Role: Access Point

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## Wi-Fi Components

### Wi-Fi Component Operating System

Android 14

### Wi-Fi Component Firmware

FW:1.1.2.0.1103.0

### 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  
160 MHz Channel Width in 5 GHz

### Protected Management Frames

### WMM®

### WPA2™-Personal 2021-01

### WPA3™-Personal 2023-12

### Wi-Fi CERTIFIED 6®

A-MPDU with A-MSDU  
Compressed Block Ack Rx (buffer size 256)  
LDPC Rx

### Wi-Fi CERTIFIED 6® (continued)

LDPC Tx  
MCS 8-9 Rx  
MCS 8-9 Tx  
MCS 10-11 Rx  
MCS 10-11 Tx  
SU beamformer  
TXOP RTS Threshold

### Wi-Fi CERTIFIED™ a

### Wi-Fi CERTIFIED™ ac

A-MPDU with A-MSDU  
LDPC Rx  
LDPC Tx  
MCS 8-9 Rx  
Short Guard Interval  
STBC  
SU beamformer

### Wi-Fi CERTIFIED™ b

### Wi-Fi CERTIFIED™ g



# Wi-Fi CERTIFIED™ Certificate

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## Wi-Fi CERTIFIED™ n

OBSS on Extension Channel

Short Guard Interval

STBC

A-MPDU Tx



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Role: Station

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## Wi-Fi Components

### Wi-Fi Component Operating System

Android 14

### Wi-Fi Component Firmware

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### 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

### WMM®

### WPA2™-Enterprise 2018-04

### WPA2™-Enterprise 2018-04 (continued)

- 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



# Wi-Fi CERTIFIED™ Certificate

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Role: Station

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## WPA3™-Enterprise 2022-12 (continued)

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 2023-12

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

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)

DL MU-MIMO

DL MU PPDU multi-tone

HE NDP

LDPC Tx

LDPC Rx

## Wi-Fi CERTIFIED 6® (continued)

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

Operating mode control field

Operating mode subfield in A-Control field

Operating mode indication

SU beamformee

SU-MIMO

UL OFDMA

UL TB PPDU multi-tone

Wi-Fi 6E

Multiple M-BSSID

## Wi-Fi CERTIFIED™ a

## Wi-Fi CERTIFIED™ ac

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



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## Wi-Fi CERTIFIED™ n

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

## Wi-Fi Enhanced Open™ 2023-12