



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: WFA117592

Product Info

| | |
|------------------------------|---------------------|
| Date of Certification | January 13, 2022 |
| Company | Google, Inc. |
| Product Name | GX7AS, G1AZG, GB17L |
| Product Model Variant | GX7AS, G1AZG, GB17L |
| Model Number | GX7AS, G1AZG, GB17L |
| Category | Phones |
| Sub-category | Smartphone |

Summary of Certifications

| CLASSIFICATION | CERTIFICATION |
|------------------------------------|---|
| Access | Wi-Fi Protected Setup™ |
| Applications & Services | Voice-Enterprise Wi-Fi Aware™ |
| Connectivity | 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 Direct® Wi-Fi Enhanced Open™ 2021-01 |
| Optimization | WMM® WMM®-Admission Control WMM®-Power Save Wi-Fi Agile Multiband™ |
| Security | Protected Management Frames |



Wi-Fi CERTIFIED™ Certificate

Certification ID: WFA117592



Summary of Certifications (continued)

Page 2 of 6

| CLASSIFICATION | CERTIFICATION |
|--------------------------------|--|
| Security | WPA2™-Enterprise 2018-04 WPA2™-Personal 2021-01 WPA3™-Enterprise 2020-02 WPA3™-Personal 2020-02 WPA3™-Personal 2020-12 |
| Spectrum & Regulatory Features | Spectrum & Regulatory |



Wi-Fi CERTIFIED™ Certificate

Certification ID: WFA117592



Role: Access Point

Page 3 of 6

Wi-Fi Components

Wi-Fi Component Operating System

Android

Wi-Fi Component Firmware

20.25.485.7

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

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 2021-01

WPA3™-Personal 2020-02

Wi-Fi CERTIFIED 6®

A-MPDU with A-MSDU

LDPC Rx

LDPC Tx

MCS 8-9 Rx

MCS 8-9 Tx

Wi-Fi CERTIFIED 6® (continued)

Operating mode indication

SU-MIMO

Wi-Fi CERTIFIED™ a

Wi-Fi CERTIFIED™ ac

A-MPDU with A-MSDU

LDPC Rx

LDPC Tx

MCS 8-9 Rx

Short Guard Interval

Wi-Fi CERTIFIED™ b

Wi-Fi CERTIFIED™ g

Wi-Fi CERTIFIED™ n

OBSS on Extension Channel

Short Guard Interval

A-MPDU Tx



Wi-Fi CERTIFIED™ Certificate

Certification ID: WFA117592



Role: Station

Page 4 of 6

Wi-Fi Components

Wi-Fi Component Operating System

Android

Wi-Fi Component Firmware

20.25.485.7

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

Protected Management Frames

Spectrum & Regulatory

802.11h

Voice-Enterprise

WMM®

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



Wi-Fi CERTIFIED™ Certificate

Certification ID: WFA117592



Role: Station

Page 5 of 6

WPA3™-Enterprise 2020-02

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

Server Certificate Validation

WPA3™-Personal 2020-12

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 Aware™

Wi-Fi CERTIFIED 6®

A-MPDU with A-MSDU

Beamforming sounding

BSRP Trigger frame

DL MU PPDU multi-tone

DL MU-MIMO

Wi-Fi CERTIFIED 6® (continued)

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

Operating mode control field

Operating mode indication

SU beamformee

SU-MIMO

UL OFDMA

UL TB PPDU multi-tone

Wi-Fi 6E

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

LDPC Tx

SU beamformee

Wi-Fi CERTIFIED™ b

Wi-Fi CERTIFIED™ g



Wi-Fi CERTIFIED™ Certificate

Certification ID: WFA117592



Role: Station

Page 6 of 6

Wi-Fi CERTIFIED™ n

A-MPDU Tx
OBSS on Extension Channel
Short Guard Interval

Wi-Fi Direct®

Wi-Fi Enhanced Open™ 2021-01

Wi-Fi Protected Setup™

Pushbutton