



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

## **Certification ID: WFA119869**

## **Product Info**

Date of Certification	May 25, 2022
Company	Google, Inc.
Product Name	GQML3
Product Model Variant	GQML3
Model Number	GQML3
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™ b 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



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Summary of Certifications (continued)		Page 2 of 6
CLASSIFICATION	CERTIFICATION	
Security	WPA2 <sup>™</sup> -Enterprise 2018-04 WPA2 <sup>™</sup> -Personal 2021-01 WPA3 <sup>™</sup> -Enterprise 2020-02 WPA3 <sup>™</sup> -Personal 2020-02 WPA3 <sup>™</sup> -Personal 2020-12	
Spectrum & Regulatory Features	Spectrum & Regulatory	



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Role: Access Point		Pa	age 3 of 6
Wi-Fi Components			
Wi-Fi Component Operating System	<b>RF Architecture</b>		
Android	Bands Supported	Transmit (Tx)	Receive (Rx)
Wi-Fi Component Firmware	2.4 GHz	2	2
20.25.485.7	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<sup>™</sup>-Personal 2021-01

WPA3<sup>™</sup>-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<sup>™</sup> 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



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## **Role: Station**

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Wi-Fi Components			
Wi-Fi Component Operating System	RF Architecture		
Android	Bands Supported	Transmit (Tx)	Receive (Rx)
Wi-Fi Component Firmware 20.25.485.7	2.4 GHz	2	2
20.20.100.1	5 GHz	2	2
	6 GHz	2	2

## Certifications

2.4 GHz Spectrum Capabilities	Voice-Enterprise
20 MHz Channel Width in 2.4 GHz	WMM®
5 GHz Spectrum Capabilities	WMM®-Admission Control
20 MHz Channel Width in 5 GHz	WMM®-Power Save
40 MHz Channel Width in 5 GHz 80 MHz Channel Width in 5 GHz 160 MHz Channel Width in 5 GHz	Legacy Power Save Unschedule auto PS
6 GHz Spectrum Capabilities	WPA2™-Enterprise 2018-04
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	EAP methods EAP AKA EAP AKA Prime EAP SIM EAP TLS EAP TTLS
Protected Management Frames	PEAPv0 PEAPv1
Spectrum & Regulatory	FLAFVI
802.11h	WPA2™-Personal 2021-01



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## **Role: Station**

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## WPA3<sup>™</sup>-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<sup>™</sup>-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



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## **Role: Station**

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#### Wi-Fi CERTIFIED™ n

A-MPDU Tx OBSS on Extension Channel Short Guard Interval

## Wi-Fi Direct®

Wi-Fi Enhanced Open<sup>™</sup> 2021-01

Wi-Fi Protected Setup™

Pushbutton