



# 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: WFA81312**

## Product Info

Date of Certification	November 1, 2019
Company	Samsung Electronics
Product Name	SM-G970XU
Product Model Variant	2019-11-01 (WFA81312 - 9926201)
Model Number	SM-G970XU
Category	Phones
Sub-category	Smartphone

## Summary of Certifications

CLASSIFICATION	CERTIFICATION
Alternative topologies	Wi-Fi Direct®
Network management	WMM® WMM®-Admission Control WMM®-Power Save Wi-Fi Agile Multiband™ Wi-Fi Optimized Connectivity™ 2018
Performance	Voice-Enterprise
Security	Protected Management Frames WPA2™-Enterprise 2018-04 WPA2™-Personal 2018-04 WPA3™-Enterprise 2018-04 WPA3™-Personal 2019-08 Wi-Fi Enhanced Open™ 2018-04
Wi-Fi (MAC/PHY)	2.4 GHz Spectrum Capabilities 5 GHz Spectrum Capabilities Spectrum & Regulatory Wi-Fi CERTIFIED 6® Wi-Fi CERTIFIED™ a Wi-Fi CERTIFIED™ ac

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## Summary of Certifications (continued)

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### CLASSIFICATION

Wi-Fi (MAC/PHY)

### CERTIFICATION

Wi-Fi CERTIFIED™ b

Wi-Fi CERTIFIED™ g

Wi-Fi CERTIFIED™ n

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Role: Station

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## Wi-Fi Components

### Wi-Fi Component Operating System

Android, version:10.0

### Wi-Fi Component Firmware

100.11.3.1 13.48.6

### 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

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

EAP TLS

### 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

### WPA2™-Personal 2018-04

### WPA3™-Enterprise 2018-04

EAP TLS

### Protected Management Frames

### WPA3™-Personal 2019-08

### Spectrum & Regulatory

### Wi-Fi Agile Multiband™

### Voice-Enterprise

### Wi-Fi CERTIFIED 6®

### WMM®

A-MPDU with A-MSDU

BSRP Trigger frame

DL MU-MIMO

Individual Target Wake Time

### WMM®-Admission Control

LDPC Rx

LDPC Tx

### WMM®-Power Save

MCS 8-9 Rx

MCS 8-9 Tx

MCS 10-11 Rx

### WPA2™-Enterprise 2018-04

EAP methods

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## Wi-Fi CERTIFIED 6® (continued)

MCS 10-11 Tx  
MU EDCA Parameter Set element  
MU-BAR Trigger frame  
MU-RTS Trigger frame  
M-BSSID  
Operating mode control field  
Operating mode indication  
SU beamformee  
UL OFDMA

## Wi-Fi CERTIFIED™ a

## Wi-Fi CERTIFIED™ ac

Short Guard Interval

## Wi-Fi CERTIFIED™ b

## Wi-Fi CERTIFIED™ g

## Wi-Fi CERTIFIED™ n

## Wi-Fi Direct®

## Wi-Fi Enhanced Open™ 2018-04

## Wi-Fi Optimized Connectivity™ 2018

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