



# 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: WFA81381**

## Product Info

|                              |                                 |
|------------------------------|---------------------------------|
| <b>Date of Certification</b> | January 3, 2019                 |
| <b>Company</b>               | Samsung Electronics             |
| <b>Product Name</b>          | SM-G970XN                       |
| <b>Product Model Variant</b> | 2019-01-03 (WFA81381 - 7945345) |
| <b>Model Number</b>          | SM-G970XN                       |
| <b>Category</b>              | Phones                          |
| <b>Sub-category</b>          | Smartphone                      |

## Summary of Certifications

| <b>CLASSIFICATION</b>              | <b>CERTIFICATION</b>   |
|------------------------------------|--|
| <b>Applications &amp; Services</b> | Voice-Enterprise   |
| <b>Connectivity</b>                | 2.4 GHz Spectrum Capabilities<br>5 GHz Spectrum Capabilities<br>Wi-Fi CERTIFIED™ a<br>Wi-Fi CERTIFIED™ ac<br>Wi-Fi CERTIFIED™ b<br>Wi-Fi CERTIFIED™ g<br>Wi-Fi CERTIFIED™ n<br>Wi-Fi Direct® |
| <b>Optimization</b>                | WMM®<br>WMM®-Admission Control<br>WMM®-Power Save<br>Wi-Fi Agile Multiband™<br>Wi-Fi Optimized Connectivity™ 2018  |
| <b>Security</b>                    | Protected Management Frames<br>WPA2™-Enterprise 2018-04<br>WPA2™-Personal 2018-04<br>WPA3™-Enterprise 2018-04<br>WPA3™-Personal 2018-04  |



# Wi-Fi CERTIFIED™ Certificate

Certification ID: WFA81381



## Summary of Certifications (continued)

Page 2 of 4

### CLASSIFICATION

### CERTIFICATION

Spectrum & Regulatory  
Features

Spectrum & Regulatory



# Wi-Fi CERTIFIED™ Certificate

Certification ID: WFA81381



Role: Station

Page 3 of 4

## Wi-Fi Components

### Wi-Fi Component Operating System

Android, version:9.0

### Wi-Fi Component Firmware

18.35.220

### 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

### WMM®-Power Save (continued)

Legacy Power Save

Unschedule auto PS

### 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™-Enterprise 2018-04

EAP methods

EAP AKA

EAP AKA Prime

EAP SIM

EAP TLS

EAP TTLS

PEAPv0

PEAPv1

### Protected Management Frames

### Spectrum & Regulatory

802.11h

### WPA2™-Personal 2018-04

### Voice-Enterprise

### WPA3™-Enterprise 2018-04

### WMM®

EAP methods

EAP AKA

EAP AKA Prime

EAP SIM

EAP TLS

### WMM®-Admission Control

### WMM®-Power Save



# Wi-Fi CERTIFIED™ Certificate

Certification ID: WFA81381



Role: Station

Page 4 of 4

## WPA3™-Enterprise 2018-04 (continued)

EAP TTLS  
PEAPv0  
PEAPv1

## Wi-Fi CERTIFIED™ n (continued)

OBSS on Extension Channel  
Short Guard Interval

## WPA3™-Personal 2018-04

## Wi-Fi Direct®

## Wi-Fi Agile Multiband™

Beacon Report Measurement Active Mode  
Beacon Report Measurement Passive Mode  
BTM Query  
Cellular Data capable  
Fast Transition OTA on WPA2-Personal

## Wi-Fi Optimized Connectivity™ 2018

## 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™ n

A-MPDU Tx