



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: WFA81379

Product Info

Date of Certification	November 1, 2019
Company	Samsung Electronics
Product Name	SM-G970X
Product Model Variant	2019-11-01 (WFA81379 - 9930703)
Model Number	SM-G970X
Category	Phones
Sub-category	Smartphone

Summary of Certifications

CLASSIFICATION	CERTIFICATION
Applications & Services	Voice-Enterprise
Connectivity	2.4 GHz Spectrum Capabilities 5 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™ 2018-04
Optimization	WMM® WMM®-Admission Control WMM®-Power Save Wi-Fi Agile Multiband™ Wi-Fi Optimized Connectivity™ 2018
Security	Protected Management Frames WPA2™-Enterprise 2018-04 WPA2™-Personal 2018-04 WPA3™-Enterprise 2018-04



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Summary of Certifications (continued)

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CLASSIFICATION

CERTIFICATION

Security

WPA3™-Personal 2019-08

WPA™-Enterprise

WPA™-Personal

Spectrum & Regulatory Features

Spectrum & Regulatory



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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

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



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WPA3™-Enterprise 2018-04 (continued)

EAP TTLS
PEAPv0
PEAPv1

WPA3™-Personal 2019-08

WPA™-Enterprise

WPA™-Personal

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 CERTIFIED 6®

A-MPDU with A-MSDU
BSRP Trigger frame
DL Mu PPDU multi-tone
DL MU-MIMO
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

Wi-Fi CERTIFIED 6® (continued)

OM Control field Tx
Operating Mode indication
SU beamformee
UL OFDMA
UL TB PPDU multi-tone

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
OBSS on Extension Channel
Short Guard Interval

Wi-Fi Direct®

Wi-Fi Enhanced Open™ 2018-04

Wi-Fi Optimized Connectivity™ 2018