



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: WFA90450

Product Info

Date of Certification	June 28, 2019
Company	HMD Global Oy
Product Name	Mobile Phone
Product Model Variant	2019-06-28 (WFA90450 - merged)
Model Number	TA-1181
Category	Phones
Sub-category	Smartphone

Summary of Certifications

CLASSIFICATION	CERTIFICATION
Access	Wi-Fi Protected Setup™
Connectivity	2.4 GHz Spectrum Capabilities 5 GHz Spectrum Capabilities Wi-Fi CERTIFIED™ a Wi-Fi CERTIFIED™ ac Wi-Fi CERTIFIED™ b Wi-Fi CERTIFIED™ g Wi-Fi CERTIFIED™ n Wi-Fi Direct®
Optimization	WMM®
Security	Protected Management Frames WPA2™-Enterprise 2018-04 WPA2™-Personal 2018-04



Wi-Fi CERTIFIED™ Certificate

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Role: Access Point

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Wi-Fi Components

Wi-Fi Component Operating System

Android, version:9

Wi-Fi Component Firmware

WLAN.HL.1.0.1.c2-00590-QCAHLSWMTPLZ-1

RF Architecture

Bands Supported	Transmit (Tx)	Receive (Rx)
2.4 GHz	1	1
5 GHz	1	1

Certifications

2.4 GHz Spectrum Capabilities

20 MHz Channel Width in 2.4 GHz

Wi-Fi CERTIFIED™ ac (continued)

Short Guard Interval

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

Wi-Fi CERTIFIED™ b

Wi-Fi CERTIFIED™ g

Wi-Fi CERTIFIED™ n

Short Guard Interval
A-MPDU Tx

Protected Management Frames

WMM®

WPA2™-Personal 2018-04

Wi-Fi CERTIFIED™ a

Wi-Fi CERTIFIED™ ac

RTS with BW Signaling
A-MPDU with A-MSDU
LDPC Rx
LDPC Tx
MCS 8-9 Rx



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Role: Station

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2.4 GHz Spectrum Capabilities

20 MHz Channel Width in 2.4 GHz
40 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™-Enterprise 2018-04

EAP methods
EAP AKA
EAP AKA Prime
EAP SIM
EAP TLS
EAP TTLS
PEAPv0
PEAPv1

WPA2™-Personal 2018-04

Wi-Fi CERTIFIED™ a

Wi-Fi CERTIFIED™ ac

Extended 5 GHz Channel Support
A-MPDU with A-MSDU
LDPC Rx
MCS 8-9 Rx
Short Guard Interval
STBC
LDPC Tx
SU beamformee

Wi-Fi CERTIFIED™ b

Wi-Fi CERTIFIED™ g

Wi-Fi CERTIFIED™ n

STBC
A-MPDU Tx
OBSS on Extension Channel
Short Guard Interval



Wi-Fi CERTIFIED™ Certificate

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Role: Station

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Wi-Fi Direct®

Wi-Fi Protected Setup™

PIN

Pushbutton