



# 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: WFA90450**

## Product Info

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

## Summary of Certifications

<b>CLASSIFICATION</b>	<b>CERTIFICATION</b>
<b>Access</b>	Wi-Fi Protected Setup™
<b>Connectivity</b>	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®
<b>Optimization</b>	WMM®
<b>Security</b>	Protected Management Frames WPA2™-Enterprise 2018-04 WPA2™-Personal 2018-04 WPA™-Enterprise WPA™-Personal



# 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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## Wi-Fi Components

### Wi-Fi Component Operating System

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### 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  
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

### WPA™-Enterprise

### WPA™-Personal

### 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



# Wi-Fi CERTIFIED™ Certificate

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Role: Station

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## Wi-Fi CERTIFIED™ n (continued)

A-MPDU Tx  
OBSS on Extension Channel  
Short Guard Interval

## Wi-Fi Direct®

## Wi-Fi Protected Setup™

PIN  
Pushbutton