



# 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: WFA77332**

## Product Info

<b>Date of Certification</b>	April 16, 2018
<b>Company</b>	Qualcomm
<b>Product Name</b>	IPQ4019 802.11ac 3-radio Router
<b>Product Model Variant</b>	2018-04-16 (WFA77332 - 7135711)
<b>Model Number</b>	CA-65-YA332-MAP
<b>Category</b>	Other
<b>Sub-category</b>	Reference Design

## Summary of Certifications

<b>CLASSIFICATION</b>	<b>CERTIFICATION</b>
<b>Applications &amp; Services</b>	Wi-Fi Location™
<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
<b>Optimization</b>	WMM®
<b>Security</b>	Protected Management Frames WPA2™-Enterprise WPA2™-Personal 2017-10
<b>Spectrum &amp; Regulatory Features</b>	Spectrum & Regulatory



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Role: Access Point

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## Wi-Fi Components

### Wi-Fi Component Operating System

Linux

### Wi-Fi Component Firmware

IPQ4019.ILQ.1.2.r3-00001-P-18

### 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

### 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

### Spectrum & Regulatory

802.11d  
802.11h

### WMM®

### WPA2™-Enterprise

EAP methods

### WPA2™-Personal 2017-10

### Wi-Fi CERTIFIED™ a

### Wi-Fi CERTIFIED™ ac

RTS with BW Signaling  
A-MPDU with A-MSDU  
DL MU-MIMO  
LDPC Rx  
LDPC Tx  
MCS 8-9 Rx  
Short Guard Interval  
STBC  
SU beamformer

### Wi-Fi CERTIFIED™ b

### Wi-Fi CERTIFIED™ g

### Wi-Fi CERTIFIED™ n

OBSS on Extension Channel  
RIFS  
Short Guard Interval  
STBC



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## Wi-Fi CERTIFIED™ n (continued)

A-MPDU Tx

## Wi-Fi Location™

Fine Timing Measurement 2017