



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: WFA77332

Product Info

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

Summary of Certifications

| CLASSIFICATION | CERTIFICATION |
|--------------------------------|---|
| Applications & Services | Wi-Fi Location™ R1 |
| 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 |
| Optimization | WMM® |
| Security | Protected Management Frames WPA2™-Enterprise WPA2™-Personal 2017-10 WPA™-Enterprise WPA™-Personal |
| Spectrum & Regulatory Features | 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

WPA™-Enterprise

WPA™-Personal

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



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Wi-Fi CERTIFIED™ n (continued)

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

Wi-Fi Location™ R1

Fine Timing Measurement 2017