



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: WFA131916

Product Info

| | |
|------------------------------|---|
| Date of Certification | August 20, 2024 |
| Company | Extreme Networks |
| Product Name | AP5020 Universal Wireless Wi-Fi 7 |
| Product Model Variant | Wi-Fi 7 |
| Model Number | AP5020-WW |
| Category | Routers |
| Sub-category | Enterprise/Service Provider Access Point, Switch/Controller or Router |

Summary of Certifications

| CLASSIFICATION | CERTIFICATION |
|---|--|
| Connectivity | 2.4 GHz Spectrum Capabilities 5 GHz Spectrum Capabilities 6 GHz Spectrum Capabilities Wi-Fi CERTIFIED 6® Release 2 Wi-Fi CERTIFIED 7™ Wi-Fi CERTIFIED™ a Wi-Fi CERTIFIED™ ac Wi-Fi CERTIFIED™ b Wi-Fi CERTIFIED™ g Wi-Fi CERTIFIED™ n Wi-Fi Enhanced Open™ 2023-12 |
| Optimization | WMM® Wi-Fi Agile Multiband™ |
| Security | Protected Management Frames WPA2™-Enterprise 2018-04 WPA2™-Personal 2021-01 WPA3™-Enterprise 2022-12 WPA3™-Personal 2023-12 |
| 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

17.10.369.1808

RF Architecture

| Bands Supported | Transmit (Tx) | Receive (Rx) |
|-----------------|---------------|--------------|
| 2.4 GHz | 4 | 4 |
| 5 GHz | 4 | 4 |
| 6 GHz | 4 | 4 |

Certifications

2.4 GHz Spectrum Capabilities

20 MHz Channel Width in 2.4 GHz
40 MHz Channel Width in 2.4 GHz

Spectrum & Regulatory (continued)

802.11d
802.11h

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
160 MHz Channel Width in 5 GHz

WMM®

Max Throughput

WPA2™-Enterprise 2018-04

EAP methods

6 GHz Spectrum Capabilities

20 MHz Channel Width in 6 GHz
40 MHz Channel Width in 6 GHz
80 MHz Channel Width in 6 GHz
160 MHz Channel Width in 6 GHz
320 MHz channel width in 6 GHz

WPA2™-Personal 2021-01

WPA3™-Enterprise 2022-12

EAP methods
192-bit security

Protected Management Frames

WPA3™-Personal 2023-12

Spectrum & Regulatory



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WPA3™-Personal 2023-12 (continued)

AKM 24
Beacon Protection

Wi-Fi Agile Multiband™

Fast Transition OTA on WPA2-Personal

Wi-Fi CERTIFIED 6® Release 2

4 antenna support
A-MPDU with A-MSDU
Basic Trigger frame in HE MU PPDU
Beamforming sounding
BSRP Trigger frame
Co-located BSS
Compressed Block Ack Rx (buffer size 256)
Compressed Block Ack Tx (buffer size 256)
DL MU-MIMO
DL OFDMA
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
Operating mode indication
SU beamformer
SU-MIMO
TXOP RTS Threshold
UL OFDMA
Wi-Fi 6E

Wi-Fi CERTIFIED 6® Release 2 (continued)

Wi-Fi 6 Release 2 features
UL MU-MIMO
UL MU Control
Target Wake Time information frames
Dynamic MU SMPS
Preamble Puncturing

Wi-Fi CERTIFIED 7™

Advertised TID-to-link mapping
A-MPDU with A-MSDU
Beamforming sounding
BSRP Trigger frame
BSS critical update
Compressed Block Ack Rx (buffer size 256)
Compressed Block Ack Tx (buffer size 256)
DL MU-MIMO
DL OFDMA
Dynamic MU SMPS
EMLSR (Enhanced Multilink Single-Radio)
LDPC Rx
LDPC Tx
Load Balancing in MLO
MCS 8-9 Rx
MCS 8-9 Tx
MCS 10-11 Rx
MCS 10-11 Tx
MCS 12-13 Rx
MCS 12-13 Tx
Multi-link reconfiguration – AP removal
Multi-link reconfiguration – AP restart
Multi-RU
MU-RTS Trigger frame
Operating mode indication
Operating mode indication for 320 MHz



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Wi-Fi CERTIFIED 7™ (continued)

Static puncturing
STR (Simultaneous Transmit and Receive)
SU-MIMO
Triggered uplink access optimization
UL MU-MIMO
UL OFDMA

Wi-Fi Enhanced Open™ 2023-12

Wi-Fi CERTIFIED™ a

Wi-Fi CERTIFIED™ ac

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

Wi-Fi CERTIFIED™ b

Wi-Fi CERTIFIED™ g

Wi-Fi CERTIFIED™ n

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