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: WFA130757

Product Info

Date of Certification	December 6, 2024
Company	Espressif Systems (Shanghai) Co., Ltd.
Product Name	2.4G&5G Wi-Fi 6 module
Product Model Variant	ESP32-C5-WROOM-1
Model Number	ESP32-C5
Category	Other
Sub-category	Other

Summary of Certifications

CLASSIFICATION	CERTIFICATION
Connectivity	2.4 GHz Spectrum Capabilities 5 GHz Spectrum Capabilities Wi-Fi CERTIFIED 6® Wi-Fi CERTIFIED™ a Wi-Fi CERTIFIED™ ac Wi-Fi CERTIFIED™ b Wi-Fi CERTIFIED™ g Wi-Fi CERTIFIED™ n
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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Wi-Fi Components

Wi-Fi Component Operating System
FreeRTOS

Wi-Fi Component Firmware
V1.0

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

Protected Management Frames

Spectrum & Regulatory

802.11h

WMM®

WPA2™-Enterprise 2018-04

EAP methods
    EAP TLS
    EAP TTLS
    PEAPv0

WPA2™-Personal 2021-01

WPA3™-Enterprise 2022-12

EAP methods
    EAP TLS
    EAP TTLS
    PEAPv0
Server Certificate Validation

WPA3™-Personal 2023-12

Wi-Fi Agile Multiband™

Wi-Fi CERTIFIED 6®

A-MPDU with A-MSDU
Beamforming sounding
BSRP Trigger frame
DL MU PPDU multi-tone
DL MU-MIMO
Individual Target Wake Time
MCS 8-9 Rx
MCS 8-9 Tx
MU EDCA Parameter Set element
MU-BAR Trigger frame

Wi-Fi CERTIFIED 6® (continued)

MU-RTS Trigger frame
Operating mode control field
Operating mode indication
SU beamformee
UL OFDMA

Wi-Fi CERTIFIED™ a

Wi-Fi CERTIFIED™ ac

A-MPDU with A-MSDU
DL MU-MIMO
MCS 8 Rx
Short Guard Interval
STBC
SU beamformee

Wi-Fi CERTIFIED™ b

Wi-Fi CERTIFIED™ g

Wi-Fi CERTIFIED™ n

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