



# 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: WFA133770**

## Product Info

<b>Date of Certification</b>	December 11, 2024
<b>Company</b>	Calix Inc.
<b>Product Name</b>	GS4229E
<b>Product Model Variant</b>	GS4229E
<b>Model Number</b>	GS4229E
<b>Category</b>	Routers
<b>Sub-category</b>	Access Point for Home or Small Office (Wireless Router)

## Summary of Certifications

<b>CLASSIFICATION</b>	<b>CERTIFICATION</b>
<b>Connectivity</b>	2.4 GHz Spectrum Capabilities 5 GHz Spectrum Capabilities Wi-Fi CERTIFIED 6® Release 2 Wi-Fi CERTIFIED™ a Wi-Fi CERTIFIED™ ac Wi-Fi CERTIFIED™ b Wi-Fi CERTIFIED™ g Wi-Fi CERTIFIED™ n
<b>Optimization</b>	WMM® Wi-Fi Agile Multiband™
<b>Security</b>	Protected Management Frames WPA2™-Enterprise 2018-04 WPA2™-Personal 2021-01 WPA3™-Enterprise 2022-12 WPA3™-Personal 2023-12
<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 router 5.4.213

### Wi-Fi Component Firmware

24.3

### RF Architecture

Bands Supported	Transmit (Tx)	Receive (Rx)
2.4 GHz	2	2
5 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

### 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 2018-04

EAP methods

### WPA2™-Personal 2021-01

### WPA3™-Enterprise 2022-12

EAP methods

### WPA3™-Personal 2023-12

### Wi-Fi Agile Multiband™

### Wi-Fi CERTIFIED 6® Release 2

4 antenna support  
A-MPDU with A-MSDU  
Basic Trigger frame in HE MU PPDU  
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



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## Wi-Fi CERTIFIED 6® Release 2 (continued)

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 6 Release 2 features  
    UL MU-MIMO  
    UL MU Control  
    UL Extended Range  
    Target Wake Time information frames  
    Extended sleep  
    Dynamic MU SMPS

## Wi-Fi CERTIFIED™ n (continued)

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

## Wi-Fi CERTIFIED™ a

## Wi-Fi CERTIFIED™ ac

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

## Wi-Fi CERTIFIED™ b

## Wi-Fi CERTIFIED™ g

## Wi-Fi CERTIFIED™ n