



# 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: WFA126967**

## Product Info

<b>Date of Certification</b>	August 7, 2023
<b>Company</b>	CROSSCALL
<b>Product Name</b>	Stellar-X5
<b>Product Model Variant</b>	Stellar-X5
<b>Model Number</b>	Stellar-X5
<b>Category</b>	Phones
<b>Sub-category</b>	Smartphone

## Summary of Certifications

<b>CLASSIFICATION</b>	<b>CERTIFICATION</b>
<b>Access</b>	Passpoint® Release 3 Wi-Fi Easy Connect™ Wi-Fi Protected Setup™
<b>Connectivity</b>	2.4 GHz Spectrum Capabilities 5 GHz Spectrum Capabilities 6 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 Wi-Fi Direct® Wi-Fi Enhanced Open™ 2021-01
<b>Optimization</b>	TDLS WMM® WMM®-Power Save Wi-Fi Agile Multiband™ Wi-Fi Optimized Connectivity™ 2020 Wi-Fi QoS Management™



# Wi-Fi CERTIFIED™ Certificate

Certification ID: WFA126967



## Summary of Certifications (continued)

Page 2 of 8

### CLASSIFICATION

### CERTIFICATION

Security

Protected Management Frames

WPA2™-Enterprise 2018-04

WPA2™-Personal 2021-01

WPA3™-Enterprise 2022-12

WPA3™-Personal 2022-06

WPA™-Enterprise

WPA™-Personal



# Wi-Fi CERTIFIED™ Certificate

Certification ID: WFA126967



Role: Access Point

Page 3 of 8

## Wi-Fi Components

### Wi-Fi Component Operating System

Android 13

### Wi-Fi Component Firmware

WLAN.MSL.1.0.1-01264-QCAMSLSWPLZ-1

### 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

### WMM®

### WMM®-Power Save

Unschedule auto PS

### WPA2™-Personal 2021-01

### WPA3™-Personal 2022-06

### Wi-Fi CERTIFIED 6®

### Wi-Fi CERTIFIED 6® (continued)

A-MPDU with A-MSDU

LDPC Rx

LDPC Tx

MCS 8-9 Rx

MCS 8-9 Tx

MCS 10-11 Rx

MCS 10-11 Tx

### Wi-Fi CERTIFIED™ a

### Wi-Fi CERTIFIED™ ac

A-MPDU with A-MSDU

LDPC Rx

LDPC Tx

MCS 8-9 Rx

Short Guard Interval

STBC

### Wi-Fi CERTIFIED™ b

### Wi-Fi CERTIFIED™ g

### Wi-Fi CERTIFIED™ n



# Wi-Fi CERTIFIED™ Certificate

Certification ID: WFA126967



Role: Access Point

Page 4 of 8

## Wi-Fi CERTIFIED™ n (continued)

OBSS on Extension Channel

Short Guard Interval

STBC

A-MPDU Tx



# Wi-Fi CERTIFIED™ Certificate

Certification ID: WFA126967



Role: Station

Page 5 of 8

## Wi-Fi Components

### Wi-Fi Component Operating System

Android 13

### Wi-Fi Component Firmware

WLAN.MSL.1.0.1-01264-QCAMSLSWPLZ-1

### RF Architecture

Bands Supported	Transmit (Tx)	Receive (Rx)
2.4 GHz	2	2
5 GHz	2	2
6 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  
160 MHz Channel Width in 5 GHz

### 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

### Passpoint® Release 3

Display of HS2.0 indication  
NAI Home Realm Query element

### Passpoint® Release 3 (continued)

Network Information in network selection  
Operating Class Indication  
Roaming Consortium Selection  
Terms and Conditions  
Venue Information

### Protected Management Frames

### TDLS

### WMM®

### WMM®-Power Save

Legacy Power Save  
Unschedule auto PS

### WPA2™-Enterprise 2018-04

EAP methods  
EAP AKA  
EAP AKA Prime



# Wi-Fi CERTIFIED™ Certificate

Certification ID: WFA126967



Role: Station

Page 6 of 8

## WPA2™-Enterprise 2018-04 (continued)

EAP SIM  
EAP TLS  
EAP TTLS  
PEAPv0  
PEAPv1

## WPA2™-Personal 2021-01

## WPA3™-Enterprise 2022-12

EAP methods  
EAP AKA  
EAP AKA Prime  
EAP SIM  
EAP TLS  
EAP TTLS  
PEAPv0  
PEAPv1  
192-bit security  
Server Certificate Validation

## WPA3™-Personal 2022-06

## WPA™-Enterprise

## WPA™-Personal

## Wi-Fi Agile Multiband™

ANQP  
ANQP-based Neighbor report  
BTM Query  
Cellular Data capable

## Wi-Fi CERTIFIED 6®

A-MPDU with A-MSDU  
Beamforming sounding  
BSRP Trigger frame  
Compressed Block Ack Rx (buffer size 256)  
DL MU-MIMO  
DL MU PPDU multi-tone  
HE NDP  
LDPC Tx  
LDPC Rx  
Individual Target Wake Time  
MCS 10-11 Rx  
MCS 10-11 Tx  
MCS 8-9 Rx  
MCS 8-9 Tx  
MU EDCA Parameter Set element  
MU-BAR Trigger frame  
MU-RTS Trigger frame  
OM Control field Tx  
OM subfield in A-Control field  
Operating mode indication  
SU beamformee  
SU-MIMO  
UL OFDMA  
UL TB PPDU multi-tone  
Wi-Fi 6E  
Multiple M-BSSID

## Wi-Fi CERTIFIED™ a

## Wi-Fi CERTIFIED™ ac

A-MPDU with A-MSDU  
DL MU-MIMO  
LDPC Rx  
MCS 8-9 Rx



# Wi-Fi CERTIFIED™ Certificate

Certification ID: WFA126967



Role: Station

Page 7 of 8

## Wi-Fi CERTIFIED™ ac (continued)

Short Guard Interval  
STBC  
LDPC Tx  
SU beamformee

## Wi-Fi Protected Setup™ (continued)

PIN  
Pushbutton

## Wi-Fi CERTIFIED™ b

## Wi-Fi CERTIFIED™ g

## Wi-Fi CERTIFIED™ n

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

## Wi-Fi QoS Management™

Default DSCP to UP mapping  
DSCP QoS Map  
Mirrored Stream Classification Service  
MSCS setup at association

## Wi-Fi Direct®

## Wi-Fi Easy Connect™

Bootstrapping methods  
QR code responder  
Public Key Exchange (PKEX)

## Wi-Fi Enhanced Open™ 2021-01

## Wi-Fi Optimized Connectivity™ 2020

Pushbutton

## Wi-Fi Protected Setup™



# Wi-Fi CERTIFIED™ Certificate

Certification ID: WFA126967



Role: Configurator

Page 8 of 8

## Wi-Fi Components

### Wi-Fi Component Operating System

Android 13

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### RF Architecture

Bands Supported	Transmit (Tx)	Receive (Rx)
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## Certifications

### Wi-Fi Easy Connect™

Provisioning configurator