



# Wi-Fi CERTIFIED® Certificate

This certificate lists the features that have successfully completed Wi-Fi Alliance interoperability testing. Learn more: [www.wi-fi.org](http://www.wi-fi.org)



**Certification ID: WFA129250**

## Product Info

|                              |                                                                       |
|------------------------------|-----------------------------------------------------------------------|
| <b>Date of Certification</b> | January 19, 2024                                                      |
| <b>Company</b>               | Grandstream Networks, Inc.                                            |
| <b>Product Name</b>          | Long-Range Enterprise Wi-Fi 6 Access Point                            |
| <b>Product Model Variant</b> | GWN7660ELR                                                            |
| <b>Model Number</b>          | GWN7660ELR                                                            |
| <b>Category</b>              | Routers                                                               |
| <b>Sub-category</b>          | Enterprise/Service Provider Access Point, Switch/Controller or Router |

## Summary of Certifications

| CLASSIFICATION            | CERTIFICATION                                                                                                                                                                                                              |
|---------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Access</b>             | Passpoint® Release 3                                                                                                                                                                                                       |
| <b>Network management</b> | WMM®<br>Wi-Fi Agile Multiband™                                                                                                                                                                                             |
| <b>Security</b>           | Protected Management Frames<br>WPA2™-Enterprise 2018-04<br>WPA2™-Personal 2021-01<br>WPA3™-Enterprise 2022-12<br>WPA3™-Personal 2022-06                                                                                    |
| <b>Wi-Fi (MAC/PHY)</b>    | 2.4 GHz Spectrum Capabilities<br>5 GHz Spectrum Capabilities<br>Spectrum & Regulatory<br>Wi-Fi CERTIFIED 6®<br>Wi-Fi CERTIFIED™ a<br>Wi-Fi CERTIFIED™ ac<br>Wi-Fi CERTIFIED™ b<br>Wi-Fi CERTIFIED™ g<br>Wi-Fi CERTIFIED™ n |

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Role: Access Point

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## Wi-Fi Components

### Wi-Fi Component Operating System

Linux 5.4.164

### Wi-Fi Component Firmware

0.4.11.4(init)

### 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  
160 MHz Channel Width in 5 GHz

### Passpoint® Release 3

Roaming Consortium Selection  
Terms and Conditions  
Venue Information

### 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  
192-bit security

### WPA3™-Personal 2022-06

### Wi-Fi Agile Multiband™

Automatically populate BSS Transition candidate list  
Cellular Data aware

### Wi-Fi CERTIFIED 6®

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

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## Wi-Fi CERTIFIED 6® (continued)

BSRP Trigger frame  
Compressed Block Ack Rx (buffer size 256)  
Compressed Block Ack Tx (buffer size 256)  
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  
M-BSSID  
Operating mode subfield in A-Control field  
Operating mode indication  
Operating mode UL MU Rx  
SU beamformer  
SU-MIMO  
TXOP RTS Threshold  
UL OFDMA

## 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  
SU beamformer

## Wi-Fi CERTIFIED™ b

## Wi-Fi CERTIFIED™ g

## Wi-Fi CERTIFIED™ n

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

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