

## Introduction

AWM27921EU is the 802.11ax WiFi module. It supports 2.4 GHz, 5 GHz, 6GHz. It is backward compatible with 802.11 a/b/g/n/ac/ax devices.

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FCC regulations restrict operation of this device to indoor use only.  
The operation of this device in the 5.925-7.125 GHz band is prohibited for control of or communications with unmanned aircraft systems.  
The operation of this device is prohibited on oil platforms, cars, trains, boats, and aircraft, except that operation of this device is permitted in large aircraft while flying above 10,000 feet.

## Specifications

### WiFi Standards

IEEE 802.11a  
IEEE 802.11b  
IEEE 802.11g  
IEEE 802.11n  
IEEE 802.11ac  
IEEE 802.11ax

### Wireless Data Rate

2.4 GHz rate: up to 287 Mbps  
5 GHz rate: up to 601 Mbps  
6 GHz rate: up to 1200 Mbps

### Wireless Security

WEP, WPA, WPA2, WPA3

### Operating System

Windows 10,11 / Linux

### Learn More

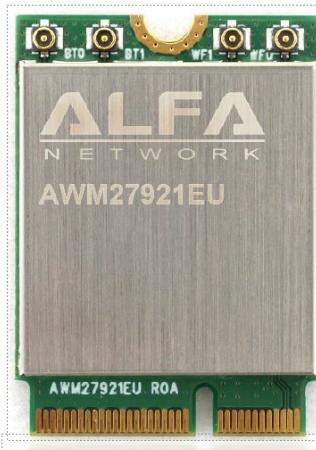
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**AWM27921EU**

|                              |  |
|------------------------------|--|
| <b>Chipset</b>               | MediaTek MT7921AUN   |
| <b>IEEE 802.11 standards</b> | a/b/g/n/ac/ax  |
| <b>Frequency</b>             | 2.4 GHz<br>5 GHz<br>6 GHz  |
| <b>Data rate</b>             | 11b: 1, 2, 5.5, 11 Mbps<br>11a/g: 6, 9, 12, 18, 24, 36, 48, and 54 Mbps<br>11n: up to 150 Mbps<br>11ac: up to 433 Mbps<br>11ax: up to 601 Mbps |
| <b>Form factor</b>           | M.2 E-key (USB bus)  |
| <b>Antenna connector</b>     | 2x IPEX (Wi-Fi)  |
| <b>Dimensions</b>            | 30 x 42 x 4.12 mm  |
| <b>Operating temperature</b> | -25°C - 75°C   |
| <b>Operation voltage</b>     | 3.3 V  |
| <b>Power consumption</b>     | 755 mA (max.)  |
| <b>Operating systems</b>     | Microsoft Windows 10/11<br>Linux   |

## FCC Caution:

Any Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference, and
- (2) this device must accept any interference received, including interference that may cause undesired operation.

### IMPORTANT NOTE:

FCC Radiation Exposure Statement:

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator& your body.

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

## Regulatory Module Integration Instructions

### 2.2 List of applicable FCC rules

CFR 47 FCC PART 15 SUBPART C&E has been investigated. It is applicable to the modular.

### 2.3 Specific operational use conditions

This module is stand-alone modular. If the end product will involve the Multiple simultaneously transmitting condition or different operational conditions for a stand-alone modular transmitter in a host, host manufacturer have to consult with module manufacturer for the installation method in end system.

The module is limited to OEM installation ONLY. The OEM integrators are responsible for ensuring that the end-use has no manual or instructions to remove or install module.

### 2.4 Limited module procedures : Not applicable

### 2.5 Trace antenna designs : Not applicable

### 2.6 RF exposure considerations

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator& your body. If the device built into a host as a portable usage, the additional RF exposure evaluation may be required as specified by 2.1093.

### 2.7 Antennas

This radio transmitter FCC ID:2AB877921 has been approved by Federal Communications Commission to operate with the antenna types listed below, with the maximum permissible gain indicated. Antenna types not included in this list that have a gain greater than the maximum gain indicated for any type listed are strictly prohibited for use with this device.

Antenna type:Dipole Antenna

Maximum Antenna gain: 2.4G WIFI /1.76 dBi, 5G WIFI/1.47dBi, 6G WIFI/2.4dBi

### 2.8 Label and compliance information

The final end product must be labeled in a visible area with the following " Contains FCC ID: 2AB877921"

### 2.9 Information on test modes and additional testing requirements

Host manufacturer is strongly recommended to confirm compliance with FCC requirements for the transmitter when the module is installed in the host.

### 2.10 Additional testing, Part 15 Subpart B disclaimer

Host manufacturer is responsible for compliance of the host system with module installed with all other applicable requirements for the system such as Part 15 B.