

# EW-7955AMC WiFiModule User Manual with Regulatory Information

EW-7955MAC is an 802.11ac/a/n 5GHz Single-Band Mini PCI express module based on Qualcomm Atheros QCA9984 chipset and Skyworks power amplifier. It supports 4T4R (4x4) technology, which runs up to 1.73Gbps (11ac VHT80 MCS9). The EW-7955MAC supports 20/40/80MHz and 256-QAM to maximize bandwidth efficiency.

## HARDWARE SPECIFICATIONS

Standard	802.11ac/a/n
Chipset	Qualcomm Atheros QCA9984
Host Interface	Mini PCIe
Data Rates	802.11a: 6-54Mbps / 802.11n :

	MCS0-31 / 802.11ac : VHT80 MCS0-9
Amplifiers	4x 5GHz High power PA (SKY85405)
Operating Voltage	DC 5V or External DC 5V
Antenna Connectors	4x I-PEX Connectors reserved for 5GHz Antenna
Power Consumption	8.84W
PCB dimensions	50.95mm x 73 mm
Operating Temperature	0°C to + 50 °C (Operating temperature) -20°C to + 70 °C (Storing Temperature)

## Antenna gain

	ANT	Model	Type	Max. Gain (dBi)
Antenna information	ANT-0/ANT-1/ANT-2/ANT-3	AT-25-A80355-B32D083	Dipole Antenna	5
	ANT-0/ANT-1/ANT-2/ANT-3	TE-2118837-2	PIFA Antenna	3.93

## Indoor Use Statement

**Caution:** This product operates in the frequency band 5.180–5.240 GHz. It is restricted to indoor operation only.

## **Federal Communication Commission Interference Statement**

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.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed

and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

- ▶ Reorient or relocate the receiving antenna.
- ▶ Increase the separation between the equipment and receiver.
- ▶ Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

- ▶ Consult the dealer or an experienced radio/TV technician for help.

**FCC Caution:** Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

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

### **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 device is intended only for OEM integrators under the following conditions:

1. The antenna must be installed such that 20 cm is maintained between the antenna and users, and
2. The transmitter module may not be co-located with any other transmitter or antenna.

As long as 2 conditions above are met, further transmitter test will not be required. However, the OEM integrator is still responsible for testing their end product for any additional compliance requirements required with this module installed

**IMPORTANT NOTE:** In the event that these conditions cannot be met (for example certain laptop configurations or co-location

with another transmitter), then the FCC authorization is no longer considered valid and the FCC ID cannot be used on the final product. In these circumstances, the OEM integrator will be responsible for re-evaluating the end product (including the transmitter) and obtaining a separate FCC authorization.

## **End Product Labeling**

This transmitter module is authorized only for use in device where the antenna may be installed such that 20 cm may be maintained between the antenna and users. The final end product must be labeled in a visible area with the following: "Contains FCC ID: U4Y-EW7955MAC". The grantee's FCC ID can be used only when all FCC compliance requirements are met.

## **Manual Information To the End User**

The OEM integrator has to be aware not to provide information to the end user regarding how to install or remove this RF module in the user's manual of the end product which integrates this module.

The end user manual shall include all required regulatory information/warning as show in this manual.

This modular transmitter compliance the FCC rule as Part 15.407. The modular transmitter specification as below.

Frequency band: WiFi 5G UNII Band 1

Frequency: 5150~5250 MHz

Modulation Type: OFDM

Output Power: 0.317 W

Spurious emissions:

53.60 dBuV/m (External Antenna)

67.56 dBuV/m (PIFA Antenna)

When use this module in your final host product still need to testing and make sure the final host product compliance the Part 15 Subpart B.

When use this module in your host product shall use a physical label stating “Contains Transmitter Module FCC ID: U4Y-EW7955MAC,” or “Contains FCC ID: U4Y-EW7955MAC,” or shall use e-labeling.

## **Professional installation instruction**

### **1. Installationpersonal**

This product is designed for specific application and needs to be installed by a qualified personal who has RF and related rule knowledge. The general user shall not attempt to install or change the setting.

### **2. Installationlocation**

The product shall be installed at a location where the radiating antenna can be kept 20 cm from nearby person in normal operation condition to meet regulatory RF exposure requirement.

### **3. Externalantenna**

Use only the antennas which have been approved by the applicant. The non-approved antenna(s) may produce unwanted spurious or excessive RF transmitting power which may lead to the violation of FCC/IC limit and is prohibited.

### **4. Installationprocedure**

Please refer to user's manual for the detail.

### **5. Warning**

Please carefully select the installation position and make sure that the final output power does not exceed the limit set force in relevant rules. The violation of the rule could lead to serious federal penal.