

### **WIFI Module**

# IEEE 802.11 b/g/n 2T/2R

## Model Number: W2MM2510

#### **Product Descrition**

The W2ZM2510/W2ZM2510P is a 2.4GHz WIFI  $2\times2$  MIMO module. This module provides a high level of integration with a dual-stream IEEE 802.11n MAC/ base band /radio. The WLAN operation supports 20MHz, 40MHz channels for data rates up to 300Mbps. It fully complies with IEEE 802.11 b/g/n feature rich wireless connectivity at high standards, delivers reliable, cost-effective, throughput from an extended distance.

#### **Product Features**

- ◆ Complies with IEEE 802.11b/g/n for 2.4GHz Wireless LAN.
- ◆ Two transmit and Two receive path(2T2R)
- ◆ Works with all existing network nfrastructure.
- ◆ Capable of up to 128-Bit WEP Encryption.
- ◆ Freedom to roam while staying connected.
- ♦ UP to 300 Mbps High-Speed Transfer Rate in 802.11n mode of operation.
- ◆ Operating Systems: Linux, Win7, Win8, Win10, XP
- ◆ Low power consumption.
- ◆ Easy to install and configure.
- ◆ High speed USB 2.0 interface
- ♦ROHS compliant

### **Product Specification**

ModelWIFI ModuleProduct NameW2ZM2510/W2ZM2510PStandard802.11 b/g/nInterfaceUSBData Transfer Rate1,2,5.5,6,11,12,18,22,24,30,36,48,54,60,90 and maximum of 300MbpsModulation MethodDQPSK,DBPSK,CCK(802.11b) QPSK,BPSK,16QAM,64QAM with OFDM (802.11g) QPSK,BPSK,16QAM,64QAM with OFDM (802.11n)Frequency Band2412~2462 MHzOperation ModeInfrastructureSecurityWEP, TKIP, AES, WPA, WPA2Operating Voltage5V±10%Current Consumption<750mAAntenna TypePIFAOperating Temperature0 ~ 60°C ambient temperatureStorage Temperature-40 ~ 80°C ambient temperatureHumidity5 to 95 % maximum (non-condensing)	1 roduct Specification		
Standard 802.11 b/g/n  Interface USB  Data Transfer Rate 1,2,5.5,6,11,12,18,22,24,30,36,48,54,60,90 and maximum of 300Mbps  Modulation Method DQPSK,DBPSK,CCK(802.11b) QPSK,BPSK,16QAM,64QAM with OFDM (802.11g) QPSK,BPSK,16QAM,64QAM with OFDM (802.11n)  Frequency Band 2412~2462 MHz  Operation Mode Infrastructure  Security WEP, TKIP, AES, WPA, WPA2  Operating Voltage 5V±10%  Current Consumption <750mA  Antenna Type PIFA  Operating Temperature  Storage Temperature -40 ~ 80°C ambient temperature	Model	WIFI Module	
Interface USB  Data Transfer Rate 1,2,5.5,6,11,12,18,22,24,30,36,48,54,60,90 and maximum of 300Mbps  Modulation Method DQPSK,DBPSK,CCK(802.11b) QPSK,BPSK,16QAM,64QAM with OFDM (802.11g) QPSK,BPSK,16QAM,64QAM with OFDM (802.11n)  Frequency Band 2412~2462 MHz  Operation Mode Infrastructure  Security WEP, TKIP, AES, WPA, WPA2  Operating Voltage 5V±10%  Current Consumption <750mA  Antenna Type PIFA  Operating Type PIFA  Operating Temperature  Storage Temperature -40 ~ 80°C ambient temperature	Product Name	W2ZM2510/W2ZM2510P	
Data Transfer Rate  1,2,5.5,6,11,12,18,22,24,30,36,48,54,60,90 and maximum of 300Mbps  Modulation Method  DQPSK,DBPSK,CCK(802.11b) QPSK,BPSK,16QAM,64QAM with OFDM (802.11g) QPSK,BPSK,16QAM,64QAM with OFDM (802.11n)  Frequency Band  2412~2462 MHz  Operation Mode  Infrastructure  Security  WEP, TKIP, AES, WPA, WPA2  Operating Voltage  5V±10%  Current Consumption  Antenna Type  PIFA  Operating Temperature  Storage Temperature  -40 ~ 80°C ambient temperature	Standard	802.11 b/g/n	
Modulation Method  DQPSK,DBPSK,CCK(802.11b) QPSK,BPSK,16QAM,64QAM with OFDM (802.11g) QPSK,BPSK,16QAM,64QAM with OFDM (802.11n)  Frequency Band  2412~2462 MHz  Operation Mode  Infrastructure  Security  WEP, TKIP, AES, WPA, WPA2  Operating Voltage  5V±10%  Current Consumption  Antenna Type  PIFA  Operating Temperature  Storage Temperature  -40 ~ 80°C ambient temperature	Interface	USB	
DQPSK,DBPSK,CCK(802.11b) QPSK,BPSK,16QAM,64QAM with OFDM (802.11g) QPSK,BPSK,16QAM,64QAM with OFDM (802.11n)  Frequency Band  2412~2462 MHz  Operation Mode  Infrastructure  Security  WEP, TKIP, AES, WPA, WPA2  Operating Voltage  5V±10%  Current Consumption  <750mA  Antenna Type  PIFA  Operating Temperature  0 ~ 60°C ambient temperature  Storage Temperature  -40 ~ 80°C ambient temperature	Data Transfer Rate	1,2,5.5,6,11,12,18,22,24,30,36,48,54,60,90 and maximum of 300Mbps	
Operation Mode Infrastructure  Security WEP, TKIP, AES, WPA, WPA2  Operating Voltage 5V±10%  Current Consumption <750mA  Antenna Type PIFA  Operating Temperature  Storage Temperature -40 ~ 80°C ambient temperature	Modulation Method	QPSK,BPSK,16QAM,64QAM with OFDM (802.11g)	
Security  WEP, TKIP, AES, WPA, WPA2  Operating Voltage  5V±10%  Current Consumption  <750mA  Antenna Type  PIFA  Operating Temperature  Storage Temperature  -40 ~ 80°C ambient temperature	Frequency Band	2412~2462 MHz	
Operating Voltage 5V±10%  Current Consumption <750mA  Antenna Type PIFA  Operating Temperature 0 ~ 60°C ambient temperature  Storage Temperature -40 ~ 80°C ambient temperature	Operation Mode	Infrastructure	
Current Consumption <750mA  Antenna Type PIFA  Operating Temperature	Security	WEP, TKIP, AES, WPA, WPA2	
Antenna Type PIFA  Operating	Operating Voltage	5V±10%	
Operating Temperature  0 ~ 60°C ambient temperature  Storage Temperature  -40 ~ 80°C ambient temperature	Current Consumption	<750mA	
Temperature  Storage Temperature -40 ~ 80°C ambient temperature	Antenna Type	PIFA	
		0 ~ 60°C ambient temperature	
Humidity 5 to 95 % maximum (non-condensing)	Storage Temperature	-40 ~ 80°C ambient temperature	
	Humidity	5 to 95 % maximum (non-condensing)	





#### **NOTICE:**

- ◆please keep this product and accessories attached to the places which children can't touch;
- ♦ do not splash water or other liquid onto this product, otherwise it may cause damage;
- ♦ do not put this product near the heat source or direct sunlight, otherwise it may cause deformation or malfunction;
- ◆please keep this product away from flammable or naked flame;
- ◆please do not repair this product by yourself. Only qualified personnel can be repaired.

#### **FCC Statement**

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 or more 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.

This equipment 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.

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

Please notice that if the FCC identification number is not visible when the module is installed inside another device, then the outside of the device into which the module is installed must also display a label referring to the enclosed module. This exterior label can use wording such as the following: "Contains FCC ID:2AC23-W2Z" any similar wording that expresses the same meaning may be used.

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 20cm between the radiator & your body. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.



The module is limited to OEM installation ONLY.

The OEM integrator is responsible for ensuring that the end-user has no manual instruction to remove or install module.

The module is limited to installation in mobile application.

A separate approval is required for all other operating configurations, including portable configurations with respect to Part 2.1093 and difference antenna configurations.

There is requirement that the grantee provide guidance to the host manufacturer for compliance with Part 15B requirements.

The module complies with FCC Part 15.247 and apply for Single module approval.

Trace antenna designs: Not applicable.

#### Antennas:

2.46	
PIFA antenna & 3 dBi	

The antenna is permanently attached, can't be replaced.