



# WIFI Module

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

### Model Number: W2RM2510F

#### Product Description

The W2RM2510F is a 2.4GHz 2x2 MIMO WIFI 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 infrastructure.
- ◆ 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

Model	WIF Module	
Product Name	W2RM2510F	
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-HT20) QPSK,BPSK,16QAM,64QAM with OFDM (802.11n-HT40)	
Frequency Band	2400~2483.5 MHz	
Frequency Range:	2412~2462 MHz	
Antenna Type:	PIFA Antenna	
Antenna Gain:	Chain 0	3dBi
	Chain 1	3dBi
Operation Mode	Infrastructure	
Security	WEP, TKIP, AES, WPA, WPA2	
Operating Voltage	3.3V±10%	
Current Consumption	<1000mA	
Antenna Type	PIFA	
Operating Temperature	-10 ~ 70°C ambient temperature	
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:**

FCC standards: FCC CFR Title 47 Part 15 Subpart C Section 15.247

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.

Caution: The user is cautioned that changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Note: 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.

If power exceeds the limit and the distance (Over 20cm distance in actual use between the device and user) is compliant with the requirement

PIFA antenna with Gain 3dBi

**FCC RF 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 a minimum distance of 20cm between the radiator and any part of your body.

**Notice to OEM integrator**

Any company of the host device which install this modular with unlimit modular approval should perform the tast of radiated & conducted emission and spurious emission, etc. according to FCC part 15C: 15.247 and 15.209 & 15.207, 15B Class B requirement, only if the test result comply with FCC part 15C: 15.247 and 15.209 & 15.207, 15B Class B requirement, then the host can be sole legally.

If the FCC ID 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. The end product shall haves the words "Contains Transmitter Module FCC ID: 2AC23-W2R".

The device must be professionally installed

The intended use is generally not for the general public.It is generally for industry/commercial use.

The connector is within the transmitter enclosure and can only be accessed by disassembly of the transmitter that is not normally required. the user has no access to the connector.

Installation must be controlled. Installation requires special training

When the module is instaed inside another device, the user manual of the hose contain below warning statement:

- 1) This device may not cause harmful interference.
- 2) Ththis device must accept any interference received, including interference that may cause undesiredoperation.



## Canada Statement:

This device contains licence-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's licence-exempt RSS(s). Operation is subject to the following two conditions:

- (1) This device may not cause interference.
  - (2) This device must accept any interference, including interference that may cause undesired operation of the device.
- The term "IC:" before the certification/registration number only signifies that the Industry Canada technical specifications were met. This product meets the applicable Industry Canada technical specifications.

Cet appareil contient des émetteurs / récepteurs exemptés de licence conformes aux RSS (RSS) d'Innovation, Sciences et Développement économique Canada. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage,  
et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

L'émetteur/récepteur exempt de licence contenu dans le présent appareil est conforme aux CNR d'Innovation, Sciences et Développement économique Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes :

- 1) L'appareil ne doit pas produire de brouillage;
- 2) L'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

Please notice that if the ISED certification 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 IC:12290A-W2R" any similar wording that expresses the same meaning may be used.

l'appareil hôte doit porter une étiquette donnant le numéro de certification du module d'Industrie Canada, précédé des mots « Contient un module d'émission », du mot « IC:12290A-W2R » ou d'une formulation similaire exprimant le même sens, comme suit

The device meets the exemption from the routine evaluation limits in section 2.5 of RSS 102 and compliance with RSS-102 RF exposure, users can obtain Canadian information on RF exposure and compliance.

Le dispositif rencontre l'exemption des limites courantes d'évaluation dans la section 2.5 de RSS 102 et la conformité à l'exposition de RSS-102 rf, utilisateurs peut obtenir l'information canadienne sur l'exposition et la conformité de rf.

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter. This equipment should be installed and operated with a minimum distance of 20 centimeters between the radiator and your body.

Cet émetteur ne doit pas être Co-placé ou ne fonctionnant en même temps qu'aucune autre antenne ou émetteur. Cet équipement devrait être installé et actionné avec une distance minimum de 20 centimètres entre le radiateur et votre corps.

## CE Statement

Herby, Hui Zhou Gaoshengda Technology Co., LTD declares that this WIFI Module, W2RM2510F is in compliance with the essential requirements and other relevant provisions of Directive 2014/53/EU.

In accordance with Article 10(2) and Article 10(10), this product allowed to be used in all EU member states.

Use the WIFI Module in the environment with the temperature between -10°C and 70°C

Operation Frequency: 2412MHz~2472MHz (802.11b/802.11g/802.11n(HT20))  
2422MHz~2462MHz (802.11n(HT40))

Max output power: WIFI: 0.0499W

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# DECLARATION OF CONFORMITY

I hereby declare that the product

**Product:**

Product Name: WIFI Module  
Model: W2RM2510F  
Brand Name: GSD  
Hardware Version: V1.0  
Software Version: V0.13

(Name of product, type or model, batch or serial number)

satisfies all the technical regulations applicable to the product within the scope of Council Directives 2014/53/EU, 2014/35/EU and 2014/30/EU:and declare that the same application has not been lodged with any other notified body.

EN 62368-1:2014+A11:2017

EN 62311:2008

Draft ETSI EN 301 489-17 V3.2.0 (2017-03)

ETSI EN 301 489-1 V2.2.3 (2019-11)

ETSI EN 300 328 V2.2.2 (2019-07)

(Title(s) of regulations, standards, etc.)

**All essential radio test suites have been carried out.**

**NOTIFIED BODY:** MiCOM Labs Inc

– **Address:**

575 Boulder Court,

Pleasanton, California94566

USA

Identification Number: 2280

**MANUFACTURER or AUTHORISED REPRESENTATIVE:**

– **Address:**

Hui Zhou Gaoshengda Technology Co., LTD

NO.75 Zhongkai Development Area, Huizhou, Guangdong, China

This declaration is issued under the sole responsibility of the manufacturer and, if applicable, his authorised representative.

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(Name, telephone and fax number)

2019-11-13

(Place, date of issue)

(Signature)

Hui Guan, N/A

(Name and title in block letters)