WIFI Module
IEEE 802.11 b/g/n 2T/2R
Model Number: W37M2110

Product Description

The W37M2110 is a 2.4GHz WIFI 2×2 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

Model	WIFI Module
Product Name	W37M2110
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	0 ~ 60°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

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.

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.

2.2
This module has been assessed against the following FCC rule parts: CFR 47 FCC Part 15 C (15.247, DTS). It is applicable to the modular transmitter。

2.3
This radio transmitter [FCC ID: 2AC23-W37] 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.

The concrete contents to check are the following three points.
1) Must use antenna such as PIFA antenna with gain not exceeding 4.93dBi;
2) Should be installed so that the end user cannot modify the antenna;
3) Feed line should be designed in 50ohm
Fine tuning of return loss etc. can be performed using a matching network.
The antenna shall not be accessible for modification or change by the end user.

L'émetteur radio FCC id: 2AC23-W37 a été approuvé par la FCC Utilisez les types d'antennes énumérés ci - dessous et indiquez le gain maximal admissible. Le gain du type d'antenne non inclus dans cette liste est supérieur au gain maximal de l'un des types énumérés et ne doit pas être utilisé avec cet équipement.

Le contenu spécifique de l'inspection comprend les trois points suivants.

1) Une antenne dont le gain ne dépasse pas 4.93 DBI, telle qu'une antenne pifa, doit être utilisée;
2) doivent être installés de façon que l'utilisateur final ne peut pas modifier l'antenne
3) La ligne d' alimentation doit être conçue en 50ohm
Le réglage précis de la perte de rendement, etc. peut être effectué en utilisant un réseau correspondant..
L'utilisateur final ne doit pas modifier ou remplacer l'antenne.

2.4
The module complies with FCC Part 15.247 and apply for single module approval.

2.5
Trace antenna designs: Not applicable.
Any deviation(s) from the defined parameters of the antenna trace, as described by the instructions, require that the host product manufacturer must notify the module grantee that they wish to change the antenna trace design. In this case, a Class II permissive change application is required to be filed by the grantee, or the host manufacturer can take responsibility through the change in FCC ID (new application) procedure followed by a Class II permissive change application.

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.

2.6
The module is limited to installation in mobile application. Host device must be operated a minimum of 20cm between people.

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.

2.7
Trace antenna designs: Not applicable.
Antennas Type and Antenna Gains

Antenna Group 1				
Antenna No.	Frequency (MHz)	Antenna Type	Maximum Antenna Gain (dBi)	Manufacturer
0	2412-2462	PIFA	4.41	ZHONG TIAN XUN TECHNOLOGY CO., LTD
1	2412-2462	PIFA	4.93	

Antenna Group 2				
Antenna No.	Frequency (MHz)	Antenna Type	Maximum Antenna Gain (dBi)	Manufacturer
0	2412-2462	PIFA	2.78	FOXCONN
1	2412-2462	PIFA	3.50	

2.8
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-W37” any similar wording that expresses the same meaning may be used.

Canada Statement

This device complies with Industry Canada’s licence-exempt RSSs. Operation is subject to the following two conditions:
(1) This device may not cause interference; and
(2) This device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d’Industrie 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'utilisateur de 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-W37" 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-W37 » 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 etla conformité à l'exposition de RSS-102 rf, utilisateurs peut obtenir l'information canadienne surl'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 ouémetteur.Cet équipement devrait être installé et actionné avec une distance minimum de 20 centimètres entre leradiateur et votre corps.

This radio transmitter [IC:12290A-W37] has been approved by Innovation, Science and Economic Development Canada 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.

The concrete contents to check are the following three points.
1) Must use antenna such as PIFA antenna with gain not exceeding 4.93dBi;
2) Should be installed so that the end user cannot modify the antenna;
3) Feed line should be designed in 50ohm
Fine tuning of return loss etc. can be performed using a matching network.
The antenna shall not be accessible for modification or change by the end user.

Le présent émetteur radio [IC:12290A-W37] a été approuvé par Innovation, Sciences et Développement économique Canada pour fonctionner avec les types d'antenne énumérés ci-dessous et ayant un gain admissible maximal. Les types d'antenne non inclus dans cette liste, et dont le gain est supérieur au gain maximal indiqué pour tout type figurant sur la liste, sont strictement interdits pour l'exploitation de l'émetteur.

Le contenu concret à vérifier sont les trois points suivants.
1) 1) Une antenne dont le gain ne dépasse pas 4.93 DBI, telle qu'une antenne pifa, doit être utilisée;

2) doivent être installés de façon que l'utilisateur final ne peut pas modifier l'antenne
3) La ligne d' alimentation doit être conçue en 50ohm
Le réglage précis de la perte de rendement, etc. peut être effectué en utilisant un réseau correspondant..
L'utilisateur final ne doit pas modifier ou remplacer l'antenne.

Antennas Type and Antenna Gains

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0	2412-2462	PIFA	2.78	FOXCONN
1	2412-2462	PIFA	3.50	

Original Antenna information:

Antenna No.	Frequency (MHz)	Antenna Type	Maximum Antenna Gain (dBi)	Manufacturer
0	2412-2462	PCB	3	GSD
1	2412-2462	PCB	3	

Notice to OEM integrator

Must use the device only in host devices that meet the FCC/ISED RF exposure category of mobile, which means the device is installed and used at distances of at least 20cm from persons.

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.
The end user manual shall include FCC Part 15 /ISED RSS GEN compliance statements related to the transmitter as show in this manual(FCC/ICanada statement).

Host manufacturer is responsible for compliance of the host system with the module installed with all other applicable requirements for the system such as Part 15 B, ICES 003.
Host manufacturer is strongly recommended to confirm compliance with FCC/ISED requirements for the transmitter when the module is installed in the host.

The use condition limitations extend to professional users, then instructions must state that this information also extends to the host manufacturer's instruction manual.

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

Any company of the host device which installs this modular should perform the test 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 complies with FCC part 15C: 15.247 and 15.209 & 15.207, 15B class B requirement. Then the host can be sold legally.
This modular transmitter is only FCC-authorized for the specific rule parts (47CFR Part 15.247) listed on the grant,

and that the host product manufacturer is responsible for compliance to any other FCC rules that apply to the host not covered by the modular transmitter grant of certification.
Host manufacturer is strongly recommended to confirm compliance with FCC/ISED requirements for the transmitter when the module is installed in the host.

Must have on the host device a label showing Contains FCC ID: 2AC23-W37 or IC: 12290A- W37
Both FCC ID and IC ID are not to be placed on the host at the same time and only hosts going into the US can use the FCC ID and only hosts going into Canada can use the IC ID.

l'hôte doit utiliser l'instrument uniquement dans des dispositifs qui répondent à la fcc / (catégorie d'exposition rf mobile, ce qui signifie le dispositif est installé et utilisé à une distance d'au moins 20 cm de personnes.
le manuel de l'utilisateur final doit inclure la partie 15 / (fac rss gen déclarations de conformité relatives à l'émetteur que de montrer dans ce manuel.
le fabricant est responsable de la conformité de l'hôte, le système d'accueil avec le module installé avec toutes les autres exigences applicables du système comme la partie 15 b, ices - 003.

accueillir le fabricant est fortement recommandé de confirmer la conformité avec les exigences de la fcc / (émetteur lorsque le module est installé dans l'hôte.

le dispositif d'accueil doivent avoir une étiquette indiquant contient FCC ID: 2AC23-W37，IC: 12290A-W37

Doit avoir sur l'appareil hôte une étiquette indiquant Contient l'ID FCC ID: 2AC23-W37 ou IC : 12290A-W37 L'ID FCC et l'ID IC ne doivent pas être placés sur l'hôte en même temps et seuls les hôtes se rendant aux États-Unis peuvent utiliser l'ID FCC et seuls les hôtes se rendant au Canada peuvent utiliser l'ID IC.