# WIFI Module IEEE 802.11b/g/n/a/ac 2T/2R

Model Number: WC3XM2001

## **Product Description**

The WC3XM2001 is a high-gain and low power consumption wifi module. It fully complies with IEEE 802.11n and IEEE 802.11b/g/a/ac feature rich wireless connectivity at high standards, delivers reliable, cost-effective, throughput from an extended distance. When 3.3V, USB bus and GND were connected, This module is working.

#### **Product Features**

- ♦ Complies with IEEE 802.11g; 802.11b; 802.11n; 802.11a; 802.11ac standard for 2.4GHz and5GHz Wireless LAN.
- ◆TWO Transmit and TWO Receive path(2T2R)
- ◆Supports Ad-Hoc/Infrastructure modes
- ◆ Works with all existing network nfrastructure.
- ◆Capable of up to 128-Bit WEP Encryption.
- ◆Freedom to roam while staying connected.
- ◆ Compatible with IEEE 802.11ac standard to provide wireless 866.7Mbps
- ◆ Operating Systems: Windows XP 32/64,2000,Windows 7,Vista 32/64,Linux,Macintosh
- ◆ Low power consumption.
- ◆ Easy to install and configure.

## **Product Specification**

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Model	WC3XM2001
Product Name	WIFI Module
Standard	802.11b/g/n /a/ac
Interface	/
Data Transfer Rate	1,2,5.5,6,11,12,18,22,24,30,36,48,54,60,9 0,120 and maximum of 300Mbps
Modulation Method	QPSK, BPSK, CCK(802.11b) QPSK, BPSK, 16QAM,64QAM with OFDM (802.11g) BPSK, QPSK, 16QAM,64QAM with OFDM(802.11n) QPSK, BPSK, 16QAM,64QAM with OFDM (802.11a) QPSK, BPSK, 16QAM,64QAM,256QAM with OFDM(802.11ac)
Frequency Band	2.4GHz: CH 1~CH13 for FCC 5GHz: 5150~5250MHz, 5725~5850MHz
Transmit Power	< 18dBm
Operation Mode	Ad hoc, Infrastructure
Operation Range	Up to 300 meters in open space
OS Support	Windows XP 32/64,2000,Windows 7,Vista 32/64,Linux,Macintosh
Security	WEP, TKIP, AES, WPA, WPA2
Operating Voltage	3.3V±10%
Operating Temperature	-10 ~ 70°C ambient temperature
Storage Temperature	-55 ~ 125°C ambient temperature

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## PRODUCTS USERMANUAL

#### **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.

To assure continued compliance, any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

#### **FCC Radiation Exposure Statement**

This equipment complies with FCC RF radiation exposure limits set forth for an uncontrolled environment.

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.

The devices must be installed and used in strict accordance with the manufacturer's instructions as described in the user documentation that comes with the product. Modular could be only used in mobile or fix device, and could not be used in any portable device.

The module must be installed in TV set.

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.

#### Caution!

The manufacturer is not responsible for any radio or TV interference caused by unauthorized modifications to this equipment. Such modifications could void the user authority to operate the equipment.

#### **Regulation information**

- (1) This device and its antenna(s) must not be co-located or operating in conjunction with any other antenna or transmitter.
- (2) This compliance to FCC radiation exposure limits for an uncontrolled environment, and minimum of 20cm separation between antenna and body.
- (3) The device is going to be operated in 5150~5250MHz frequency range. It is restricted indoor environment only.
- (4) 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.
- (5) The end product must carry a label stating "Contains FCC ID: 2AC23-WC3XM2001" or shall use e-labeling.

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# PRODUCTS USERMANUAL

#### **Canadian ISED Statement**

This device complies with Industry Canada license-exempt RSS standard(s). 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.

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

The device for operation in the band 5150–5250 MHz is only for indoor use to reduce the potential for harmful interference to co-channel mobile satellite systems.

The device shall automatically discontinue transmission in cases of absence of information to transmit, or operational failure. Then it will scan the available radio signals. If this signal is connected before, it will be automatically connected, otherwise manual connections will be necessary.

A host product shall use a physical label stating "Contains IC: 12290A-WC3XM2001" or shall use e-labeling This radio transmitter (IC: 12290A-WC3XM2001) has been approved by Industry Canada to operate with the antenna types listed below with the maximum permissible gain indicated. Antenna types not included in this list, having a gain greater than the maximum gain indicated for that type, are strictly prohibited for use with this device

Antenna type	Antenna gain
PIFA Antenna	2412MHz to 2462MHz: Max gain: 2.18dBi
	5150 MHz to 5250 MHz: Max gain: 3.63 dBi
	5250 MHz to 5350 MHz: Max gain: 3.63 dBi
	5470 MHz to 5725 MHz: Max gain: 3.63 dBi
	5725 MHz to 5850 MHz: Max gain: 3.63 dBi

#### **ISED Radiation Exposure Statement**

This equipment complies with IC RF radiation exposure limits set forth for an uncontrolled environment.

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 minimum distance 7.9 inches (20 cm) between the radiator & your body.

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# PRODUCTS USERMANUAL

### Déclaration ISED canadienne

Cet appareil est conforme aux normes RSS exemptes de licence d'Industrie Canada. Son fonctionnement est soumis aux deux conditions suivantes: (1) cet appareil ne doit pas causer d'interférences, et (2) cet appareil doit accepter toute interférence, y compris les interférences pouvant provoquer un fonctionnement indésirable de l'appareil.

Tout changement ou modification non expressément approuvé par la partie responsable de la conformité peut annuler l'autorité de l'utilisateur à utiliser l'équipement.

Le dispositif utilisé dans la bande 5150-5250 MHz est réservé à une utilisation en intérieur afin de réduire le risque de brouillage préjudiciable aux systèmes mobiles par satellite dans le même canal.

L'appareil doit automatiquement interrompre la transmission en cas d'absence d'informations à transmettre, ou de panne opérationnelle. Ensuite, il va scanner les signaux radio disponibles. Si ce signal est connecté auparavant, il sera automatiquement connecté, sinon des connexions manuelles seront nécessaires.

Un produit hôte doit utiliser une étiquette physique indiquant "Contient IC: 12290A-WC3XM2001" ou doit utiliser un étiquetage électronique.

Cet émetteur radio (IC: 12290A-WC3XM2001) a été approuvé par Industrie Canada pour fonctionner avec les types d'antenne énumérés ci-dessous avec le gain maximal admissible indiqué. Les types d'antennes non inclus dans cette liste, dont le gain est supérieur au gain maximal indiqué pour ce type, sont strictement interdits pour une utilisation avec cet appareil.

Type d'antenne	le gain d'antenne
pifa antenne	2412MHz à 2462MHz: gain maximum: 2,18dBi
	5150 MHz à 5250 MHz: Gain maximum: 3,63 dBi
	5250 MHz à 5350 MHz: Gain maximum: 3,63 dBi
	5470 MHz à 5725 MHz: Gain maximum: 3,63 dBi
	5725 MHz à 5850 MHz: Gain maximum: 3,63 dBi

#### Déclaration d'exposition aux rayonnements ISED:

Cet équipement est conforme aux limites d'exposition aux radiations RF IC définies pour un environnement non contrôlé.

Cet émetteur ne doit pas être situé au même endroit ou fonctionner conjointement avec une autre antenne ou émetteur.

Cet équipement doit être installé et utilisé avec une distance minimale de 20 cm (7,9 pouces) entre le radiateur et votre corps.

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