USER MANUAL

IEEE 802.11 a/b/g/n/ac/ax 2T/2R+ Bluetooth V2.1/4.2/5.3 USB2.0 Module

WIFI module
Model Number: WXT23M2001

1. General Description

This module provides a high level of integration with adual-stream IEEE 802.11ax MAC/ base band /radio.The WLAN operation supports 20MHz,40MHz and80MHz channels for data rates up to 1201Mbps. It is also backward complied with IEEE 802.11a standardfrom 5.15~5.825GHz wideband and IEEE 802.11b/g standard from 2.4~2.5GHz. It can be used to provideup to 54Mbps for IEEE 802.11a and IEEE 802.11g, 11Mbps for IEEE 802.11b and 300Mbps for IEEE802.11n. The Bluetooth part supports latest 5.0 .

With seamless roaming, fully interoperability and advanced security with WEP standard, 802.11 a/b/g/n/ac USB2.0 Module offers absolute interoperability with different vendors 802.11a/b/g/n/ac. Access Points through the wireless LAN.

2. Features

- Compatible with IEEE 802.11a standard to provide wireless 54Mbps data rate
- Compatible with IEEE 802.11b standard to provide wireless 11Mbps data rate
- Compatible with IEEE 802.11g standard to provide wireless 54Mbps data rate
- Compatible with IEEE 802.11n standard to provide wireless 300Mbps data rate
- Compatible with IEEE 802.11ac standard to provide wireless 866.7Mbps date rate.
- Compatible with IEEE 802.11ax standard to provide wireless 1201Mbps data rate.
- Operation at 2.4~2.5GHz and 5.15~5.825GHz frequency band to meet worldwide regulations.
- Support MU-MIMO RX .
- Bluetooth specification 2.1+EDR
- Bluetooth 5.2 Low Energy (LE)
- IEEE 802.11 d/e/h/i/j/k/mc/r/v/w support
- Security support for WFA WPA/WPA2/WPA3 personal, WPS2.0, WAPI
- Drivers support Win10,Win8,Win7,XP,Linux
- High speed USB 2.0 interface
- High speed USB 3.0 interface
- HSF compliant

3. Electrical and Thermal Characteristics

3.1 Temperature Limit Ratings

Parameter	Minimum	Maximum	Units
Storage Temperature	-40	+80	C
Ambient Operating Temperature	0	60	C
Junction Temperature	0	125	C

3.2 General Section

	Feature	Detailed Description
5.2.1	Antenna Type	● Solder pads
5.2.2	Operating Voltage	● 3.3V±10%
5.2.3	Current Consumption	● < 300mA@RX ● < 1000mA@TX
5.2.4	Form Factor and Interface	● High Speed USB2.0 Interface

Antenna Information:

Manufacturer: Xiamen Prima Technology Inc.

Address: NO.333,Shangtang North Road,Xiang' an District, Xiamen, Fujian,China

When the device support wlan 5G (5150-5250Mhz, 5260MHz~5320MHz), only used to indoor

FCC 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.

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, pursua nt to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful inte rference in a residential installation. This equipment generates uses and can radiate radio frequency energy a nd, if not installed and used in accordance with the instructions, may cause harmful interference to radio com munications. 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 turn ing 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 important announcement

Important Note:

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 and your body.

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

Country Code selection feature to be disabled for products marketed to the US/Canada.

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,
3. For all products market in US, OEM has to limit the operation channels in CH1 to CH11 for 2.4G band by supplied firmware programming tool. OEM shall not supply any tool or info to the end-user regarding to Regulatory Domain change. (if modular only test Channel 1-11)

As long as the three conditions above are met, further transmitter testing 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

The final end product must be labeled in a visible area with the following"

Contains FCC ID: **2ADID-WXT23M2001** "

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.

Integration instructions for host product manufacturers according to KDB 996369 D03 OEM Manual v01r01

2.2 List of applicable FCC rules

CFR 47 FCC PART 15 SUBPART C has been investigated. It is applicable to the modular transmitter

2.3 Specific operational use conditions

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

2.4 Limited module procedures

Not applicable

2.5 Trace antenna designs

Not applicable

2.6 RF exposure considerations

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.

2.7 Antennas

This radio transmitter **FCC ID:2ADID-WXT23M2001** 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.

Antenna No.	Model No. of antenna:	Type of antenna:	Gain of the antenna (Max.)			Frequency range:
			Ant	Ant 1	Ant 2	
Bluetooth	/	PCB Antenna	2.09	N/A	N/A	2402-2480MHz
2.4G Wi-Fi	/	PCB Antenna	N/A	2.78	4.56	2412-2462MHz
U-NII-1	/	PCB Antenna	N/A	-1.58	-2.38	5180-5240MHz
U-NII-2A	/	PCB Antenna	N/A	-1.58	-2.38	5260-5320MHz
U-NII-2C	/	PCB Antenna	N/A	3.35	5.85	5500-5720MHz
U-NII-3	/	PCB Antenna	N/A	3.35	5.85	5745-5825MHz

2.8 Label and compliance information

The final end product must be labeled in a visible area with the following" Contains **FCC ID:2ADID-WXT23M2001**".

2.9 Information on test modes and additional testing requirements

Host manufacturer is strongly recommended to confirm compliance with FCC requirements for the transmitter when the module is installed in the host.

2.10 Additional testing, Part 15 Subpart B disclaimer

Host manufacturer is responsible for compliance of the host system with module installed with all other applicable requirements for the system such as Part 15 B.

2.11 Note EMI Considerations

Host manufacture is recommended to use D04 Module Integration Guide recommending as "best practice" RF
design engineering testing and evaluation in case non-linear interactions generate additional non-compliant limits due to module placement to host components or properties.

2.12 How to make changes

This module is stand-alone modular. If the end product will involve the Multiple simultaneously transmitting condition or different operational conditions for a stand-alone modular transmitter in a host, host manufacturer have to consult with module manufacturer for the installation method in end system. According to the KDB 996369 D02 Q&A Q12, that a host manufacture only needs to do an evaluation (i.e., no C2PC required when no emission exceeds the limit of any individual device (including unintentional radiators) as a composite. The host manufacturer must fix any failure.

ISED Statement

- English: 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.

- French:Cet appareil contient des émetteurs/récepteursexempts de licence qui sont conformes aux CNR exempts de licence d'Innovation, Sciences et Développementéconomique Canada. Le fonctionnement est soumis aux deux conditions suivantes :
(1) Cet appareil ne doit pas causer d'interférences.
(2) Cet appareil doit accepter toute interférence, y compris les interférences susceptibles de provoquer un fonctionnement indésirable de l'appareil.

This device meets the exemption from the routine evaluation limits in section 6.6 of RSS 102 and compliance with RSS 102 RF exposure, users can obtain Canadian information on RF exposure and compliance.
cet appareil est conforme à l'exemption des limites d'évaluation courante dans la section 6.6 du cnr - 102 et conformité avec rss 102 de l'exposition aux rf, les utilisateurs peuvent obtenir des données canadiennes sur l'exposition aux champs rf et la conformité.

This equipment complies with Canada 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.
Cet équipement est conforme Canada limites d'exposition aux radiations dans un environnement non contrôlé.
Cet équipementdoit être installé et utilisé avec une distance minimale de 20 cm entre le radiateur et votre corps.

ISED Modular Usage Statement

NOTE 1: When 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 the
wording "Contains transmitter module IC: 34130-WXT23M2001" or "Contains IC: 34130-WXT23M2001".

NOTE 1: Lorsque le numéro de certification ISED n'est pas visible lorsque le module est installé dans un autre appareil, l'extérieur de l'appareil dans lequel le module est installé doit également afficher une étiquette faisant référence au module inclus. Cette étiquetteextérieure peut être libellée Contient le module émetteur
IC: 34130-WXT23M2001 ou Contient IC: 34130-WXT23M2001.