



PRODUCT MODEL (HVIN): WCT54M2001

PRODUCT DESCRIPTION (PMN): WIFI+BT Module

### SAFETY REGYLATION:

1. shall not arbitrarily change the frequency of transmission, increase the transmission power (including the installation of radio frequency power amplifier);
2. it is not allowed to cause harmful interference to all kinds of legal radio communication. Once it is found that there is interference, it should be stopped immediately, and measures can be taken to eliminate interference before continuing to use it;
3. must be able to resist radiation interference of various radio or industrial / scientific / medical applications;
4. may not be used near airplane or airports.

### NOTICE:

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

### FEATURES:

1. 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 802.11a 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 data rate.
2. Support 20MHz, 40MHz, 80MHz in 5GHz band, and 20MHz,40MHz bandwidth in 2.4GHz band
3. The modulation type are DQPSK,DBPSK and CCK with DSSS to 802.11b;  
QPSK,BPSK,16QAM,64QAM with OFDM to 802.11g/a/n;  
QPSK,BPSK,16QAM,64QAM,256QAM with OFDM to 802.11ac;
4. Supports Bluetooth V2.1/3.0/4.2/5.0
5. Supports external PA and LNA with control logics.
6. Operation at 2.4~2.4835GHz, 5.15~5.25GHz, 5.725~5.85GHz frequency band to meet worldwide regulations.
7. Provides simple legacy and 20MHz/40MHz/80MHz co-existence mechanisms to ensure backward and network compatibility.
8. Friendly user configuration and diagnostic utilities
9. Drivers support Windows7.LINUX
10. High speed USB 2.0 interface for WLAN
11. RoHS compliant
12. Transmit power no more than 1000mW
13. Voltage is 3.3VDC



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## **Compliance Information**

### **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.

Any 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/television technician for help.

### **FCC Radiation Exposure Statement**

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

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

This equipment should be installed and operated with a minimum distance of 7.9 inches (20 cm) between the radiator and your body.



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 Transmitter Module FCC ID: 2AC23-WCT54 Or Contains FCC ID: 2AC23-WCT54”

When the module is installed inside another device, the user manual of the host must contain below warning statements;

1. 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.

(2) This device must accept any interference received, including interference that may cause undesired operation.

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.

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

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.

Any company of the host device which install this modular with limit modular approval should perform the test of radiated & conducted emission and spurious emission,etc. according to FCC part 15C : 15.247 and 15.209 & 15.207 and FCC Part 15E: 15.407, 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 and part 15E: 15.407, then the host can

CFR 47 FCC PART 15 SUBPART C (15.247) and SUBPART E (15.407) has been investigated. It is applicable to the modular transmitter

This radio transmitter 2AC23-WCT54 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.

**unique antenna connector (IPX) must be used on the Part 15 authorized transmitters used in the host product.**



5G wifi Antenna:

| Antenna No. | Frequency (MHz)     | Antenna Type | Max Antenna Gain (dBi) |
|-------------|---------------------|--------------|------------------------|
| 0           | 5150-5250,5725-5850 | PIFA Antenna | 2.13                   |
| 1           | 5150-5250,5725-5850 |              | 2.13                   |

2.4G wifi Antenna:

| Antenna | Frequency (MHz) | Antenna Type | Antenna Gain (dBi) |
|---------|-----------------|--------------|--------------------|
| 0       | 2412-2462       | PIFA Antenna | 4.74               |
| 1       | 2412-2462       | PIFA Antenna | 4.74               |

Bluetooth Antenna:

| Ant. | Frequency (MHz) | Antenna Type | Antenna Gain (dBi) |
|------|-----------------|--------------|--------------------|
| 1    | 2402-2480       | PIFA Antenna | 4.74               |



### **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 is going to be operated in 5150~5350MHz frequency range. It is restricted indoor environment only.

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, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

### **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.

Le présent appareil est conforme de ce matériel aux conformités ou aux limites d'intensité de champ RF, les utilisateurs peuvent sur l'exposition aux radiofréquences et la conformité and compliance d'acquérir les informations correspondante.

## 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.

The end user manual shall include FCC Part 15 /ISED RSS GEN compliance statements related to the transmitter as show in this manual.

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, 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.

Must have on the host device a label showing Contains FCC ID: 2AC23-WCT54

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 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.

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-WCT54