

WIFI+BT Module

IEEE 802.11 a/b/g/n/ac/ax 2T/2R

Model Number: WXT2IM2511

Product Description

This document is to specify the product requirements for 802.11a/b/g/n/ac/ax and Bluetooth USB Module. This Card is based on MediaTek MT7921 chipset. It is a complete multi-band (2.4GHz and 5GHz) WIFI 2 x 2 MIMO MAC/PHY/Radio System-on-a-Chip. This module provides a high level of integration with dual-stream IEEE 802.11ax MAC/ base band /radio. The WLAN operation supports 20MHz, 40MHz and 80MHz channels for data rates up to 1201Mbps. It is also backward compliant with IEEE 802.11a standard from 5.15~5.825GHz wideband and IEEE 802.11b/g standard from 2.4~2.5GHz. It can be used to provide up to 54Mbps for IEEE 802.11a and IEEE 802.11g, 11Mbps for IEEE 802.11b and 300Mbps for IEEE 802.11n. The Bluetooth part supports latest 5.2.

With seamless roaming, full interoperability and advanced security with WEP standard, 802.11 a/b/g/n/ac/ax USB2.0/USB3.0 Module offers absolute interoperability with different vendors 802.11a/b/g/n/ac/ax. Access Points through the wireless LAN.

Product 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 data 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/m/r/v/w support
- Security support for 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

Product Specification

Operating Voltage	5V±10%
Current Consumption	<2000mA
Antenna Type	PIFA Antenna
Operating Temperature	0 ~ 70°C ambient temperature
Storage Temperature	-40 ~ 80°C ambient temperature

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.

Antenna description

The DUT supports Bluetooth, 2.4 and 5GHz functions, and there is only one antenna type. The information is as follows. PIFA antenna and module are permanently connected.

1) PIFA Antenna, Bluetooth peak gain 1.85dbi, 2.4G peak gain 1.56dbi/Ant1 and 3.33dbi/Ant2, 5G peak gain 3.41 dBi/Ant1 and 4.77 dBi/Ant2.

Federal Communication Commission Interference Statement

USERS MANUAL OF THE END PRODUCT:

In the users manual of the end product, the end user has to be informed to keep at least 20cm separation with the antenna while this end product is installed and operated. The end user has to be informed that the FCC radio-frequency exposure guidelines for an uncontrolled environment can be satisfied. The end user has to also be informed that any changes or modifications not expressly approved by the manufacturer could void the user's authority to operate this equipment. If the size of the end product is smaller than 8x10cm, then additional FCC part 15.19 statement is required to be available in the users manual: This device complies with Part 15 of 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.

LABEL OF THE END PRODUCT:

The final end product must be labeled in a visible area with the following " Contains FCC ID: 2BAD6-7METZIFPD ". If the size of the end product is larger than 8x10cm, then the following FCC part 15.19 statement has to also be available on the label: This device complies with Part 15 of 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.

IMPORTANT NOTE:

FCC 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 & your body.

This device and its antenna(s) must not be co-located with any other transmitters except in accordance with FCC multi-transmitter product procedures.

Referring to the multi-transmitter policy, multiple-transmitter(s) and module(s) can be operated simultaneously without C2PC.

This module is intended for OEM integrator. The OEM integrator is responsible for the compliance to all the rules that apply to the product into which this certified RF module is integrated.

Additional testing and certification may be necessary when multiple modules are used.

Industry Canada Statement

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;

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;

RSS-Gen Section 8.4 User manual notice

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.

RSS Gen section 8.4 notice d'utilisation

Cet appareil contient un émetteur / récepteur sans licence conforme au CNR sans licence d'innovation, sciences et développement économique Canada. Les opérations sont soumises aux deux conditions suivantes:

- 1) Cet appareil peut ne pas causer d'interférences.
- 2) L'appareil doit accepter toute interférence, y compris celles qui pourraient entraîner un fonctionnement accidentel de l'appareil.

This device is intended only for OEM integrators under the following conditions: (For module device use)

- 3) The antenna must be installed such that 20 cm is maintained between the antenna and users, and
- 4) The transmitter module may not be co-located with any other transmitter or antenna.

As long as 2 conditions above are met, further transmitter test 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.

Cet appareil est conçu uniquement pour les intégrateurs OEM dans les conditions suivantes: (Pour utilisation de dispositif module)

1) L'antenne doit être installée de telle sorte qu'une distance de 20 cm est respectée entre l'antenne et les utilisateurs, et

2) Le module émetteur peut ne pas être coïmplanté avec un autre émetteur ou antenne.

Tant que les 2 conditions ci-dessus sont remplies, des essais supplémentaires sur l'émetteur ne seront pas nécessaires. Toutefois, l'intégrateur OEM est toujours responsable des essais sur son produit final pour toutes exigences de conformité supplémentaires requis pour ce module installé.

IMPORTANT NOTE:

In the event that these conditions can not be met (for example certain laptop configurations or colocation with another transmitter), then the Canada authorization is no longer considered valid and the IC ID can not 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 Canada authorization.

NOTE IMPORTANTE:

Dans le cas où ces conditions ne peuvent être satisfaites (par exemple pour certaines configurations d'ordinateur portable ou de certaines co-localisation avec un autre émetteur), l'autorisation du Canada n'est plus considéré comme valide et l'ID IC ne peut pas être utilisé sur le produit final. Dans ces circonstances, l'intégrateur OEM sera chargé de réévaluer le produit final (y compris l'émetteur) et l'obtention d'une autorisation distincte au Canada.

End Product Labeling

This transmitter module is authorized only for use in device where the antenna may be installed such that 20 cm may be maintained between the antenna and users. The final end product must be labeled in a visible area with the following: "Contains IC: 30102-7METZIFPD".

Plaque signalétique du produit final

Ce module émetteur est autorisé uniquement pour une utilisation dans un dispositif où l'antenne peut être installée de telle sorte qu'une distance de 20cm peut être maintenue entre l'antenne et les utilisateurs. Le produit final doit être étiqueté dans un endroit visible avec l'inscription suivante: "Contient des IC: 30102-7METZIFPD".

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.

Manuel d'information à l'utilisateur final

L'intégrateur OEM doit être conscient de ne pas fournir des informations à l'utilisateur final quant à la façon d'installer ou de supprimer ce module RF dans le manuel de l'utilisateur du produit final qui intègre ce module.

Le manuel de l'utilisateur final doit inclure toutes les informations réglementaires requises et avertissements comme indiqué dans ce manuel.