



## WIFI+BT Module

### IEEE 802.11 a/b/g/n/ac/ax 1T/1R

### Model Number: WXT8HN1101

#### Product Description

The WXT8HN1101 is a complete 2.4GHz/5GHz WIFI 1x1 module, This module provides BLE 5.3. The WLAN operation supports 20MHz for 802.11 a/b/g/n/ac/ax. Applications include connected smart home devices, gaming controllers, enterprise and industrial automation, smart accessories, and smart energy.

#### Product Features

- ◆ Complies with IEEE 802.11b/g/n/ax for 2.4GHz, IEEE 802.11a/n/ac/ax for 5GHz
- ◆ BLE v5.3
- ◆ One transmit and one receive path(1T1R)
- ◆ Works with all existing network infrastructure.
- ◆ 260 MHz Arm Cortex-M33 with TrustZone-M
- ◆ Operating Systems: Linux, Windows.
- ◆ Low power consumption.
- ◆ Easy to install and configure.
- ◆ HSf compliant

#### Product Specification

Model	WIFI+BT Module
Product Name	WXT8HN1101
Standard	802.11 a/b/g/n/ac/ax
Interface	UART
Modulation Method	GFSK (BLE) DQPSK, DBPSK, CCK(802.11b) QPSK, BPSK, 16QAM, 64QAM with OFDM (802.11g) QPSK, BPSK, 16QAM, 64QAM with OFDM (802.11n) QPSK, BPSK, 16QAM, 64QAM with OFDM (802.11a) QPSK, BPSK, 16QAM, 64QAM with OFDM (802.11ac) QPSK, BPSK, 16QAM, 64QAM, 256QAM, 1024QAM with OFDMA (802.11ax)
Frequency Band	BLE 2402~2480 MHz  WIFI 2.4G: 2412~2462 MHz 5G: 5150~5350MHz, 5470~5725MHz, 5725~5850MHz
Operation Mode	Infrastructure
Security	WEP, TKIP, AES, WPA, WPA2
Operating Voltage	3.3V±10%
Current Consumption	<1000mA
Antenna Type	FPC
Operating Temperature	0 ~ 85°C ambient temperature
Storage Temperature	-55 ~ 125°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.

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.

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-WXT8H” any similar wording that expresses the same meaning may be used.

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.

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.

The module is limited to installation in mobile application.

A separate approval is required for all other operating configurations, including portable configurations with respect to Part 2.1093 and difference antenna configurations.

There is requirement that the grantee provide guidance to the host manufacturer for compliance with Part 15B requirements.

The module complies with FCC Part 15.247 / Part 15.407 and apply for Single module approval.

Trace antenna designs: Not applicable.

Antenna:

2.4G WIFI	5G WIFI
FPC antenna & -0.49 dBi	FPC antenna & 3.65 dBi

BT Antenna:

TYPE	GAIN
FPC antenna	-0.49 dBi

The antenna is permanently attached, can't be replaced.

## 2.2 List of applicable FCC rules

The device compliance with FCC Part 15.247 and FCC Part 15.407.

## 2.3 Summarize the specific operational use conditions

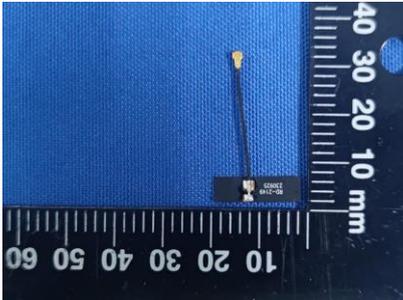
The OEM integrator is still responsible for testing their end-product for any additional compliance requirements required for the installed module.

## 2.4 Limited module procedures

Device is single module approval.

## 2.5 Trace antenna designs

FPC antenna. Shown as below:



2.4G WIFI&BT(2400-2500MHz) antenna gain is -0.49dBi

5G WIFI(5000-6000MHz) antenna gain is 3.65dBi

## 2.6 RF exposure considerations

Compliance with FCC Part 2.1091

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. 2. The transmitter module may not be co-located with any other transmitter or antenna. As long as the two conditions above are met, additional transmitter testing will not be required.

## 2.7 Antennas

FPC antenna.

2.4G WIFI&BT(2400-2500MHz) antenna gain is -0.49dBi

5G WIFI(5000-6000MHz) antenna gain is 3.65dBi

## 2.8 Label and compliance information

The label compliance with FCC requirement, and the end product must be labeled in a visible area with the following: " Contains, FCC ID: 2AC23-WXT8H "

## 2.9 Information on test modes and additional testing requirements

The module under Continuous transmit ion and lager than 98% duty cycle

## 2.10 Additional testing, Part 15 Subpart B disclaimer

The test results compliance with FCC Part 15B requirement.



### **Frequency Band(s)**

This module operates with the following frequency bands and maximum frequency power.

NOTE:

The product is compliant with these power limits required by the European Union. Frequency bands supported by the product vary by model.

2.4G&5G WIFI: <20 dBm

BLE: <13 dBm

### **EU DECLARATION OF CONFORMITY**



Hereby, Hui Zhou Gaoshengda Technology Co.,LTD declare that WIFI+BT Module with model WXT8HN1101 is in compliance with Directive 2014/53/EU.