

#### 1. Product Parameter

- Product name: Micro Wave Module
- product size : $21 \times 21 \times 4$ mm
- supply voltage: 5V DC
- working current : 50mA±10mA
- **microwave frequency** : 10.525GHz  $\pm 25$ MHz
- transmitting power :  $\leq 1 \text{mW}$
- 2. product instruction



After the product is electrified and preheated for 15 seconds, a pulsating signal is output. The frequency and amplitude of the pulsating signal are related to the surrounding objects and the moving speed of the objects.

3 Product size and wiring diagram





This module is intended for OEM integrator. The OEM integrator is still responsible for the FCC compliance requirement of the end product, which integrates this module. The final end product must be labeled in a visible area with the following Contains ID: 2AU7RS-RADAR

## **Regulatory Module Integration Instructions**

## 2.2 List of applicable FCC rules

This device complies with part 15.245 of the FCC Rules.

#### 2.3 Summarize the specific operational use conditions

This module can be applied in lamp. The input voltage to the module should be 5V DC from system and the ambient temperature of the module should be  $-20^{\circ}C$  -  $40^{\circ}C$ .

This module using one kind of PCB antenna with maximum gain is 3.2 dBi , If the antenna needs to be changed, the certification should be re-applied.

#### 2.4 Limited module procedures

This module can be used in lamp electrical appliances. Normally host device should provide a power supply in 5V for this module. The limited module manufacturer will reviews detailed test data or host designs prior to giving the host manufacturer approval.

### 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 .If the device built into a host as a portable usage, the additional RF exposure evaluation may be required as specified by 2.1093.

### 2.7 Antennas

Module contains Two PCB antenna.

### 2.8 Label and compliance information

The outside of final products that contains this module device must display a label referring to the enclosed module. This exterior label can use wording such as: "Contains Transmitter Module FCC ID: 2AU7RS-RADAR ", or "Contains FCC ID: 2AU7RS-RADAR ", Any similar wording that expresses the same meaning may be used.

### 2.9 Information on test modes and additional testing requirements

a)The modular transmitter has been fully tested by the module grantee on the required number of channels, modulation types, and modes, it should not be necessary for the host installer to re-test all the available transmitter modes or settings. It is recommended that the host product manufacturer, installing the modular transmitter, perform some investigative measurements to confirm that the resulting composite system does not exceed the spurious emissions

limits or band edge limits (e.g., where a different antenna may be causing additional emissions).

b)The testing should check for emissions that may occur due to the intermixing of emissions with the other transmitters, digital circuitry, or due to physical properties of the host product (enclosure). This investigation is especially important when integrating multiple modular transmitters where the certification is based on testing each of them in a stand-alone configuration. It is important to note that host product manufacturers should not assume that because the modular transmitter is certified that they do not have any responsibility for final product compliance.

C)If the investigation indicates a compliance concern the host product manufacturer is obligated to mitigate the issue. Host products using a modular transmitter are subject to all the applicable individual technical rules as well as to the general conditions of operation in Sections 15.5, 15.15, and 15.29 to not cause interference. The operator of the host product will be obligated to stop operating the device until the interference has been corrected

The module is based on 10.525G-A chip .support standard SRD commands. For the testing module on your product, user can refer to specification of the SRD system on how to configure and evaluate the module.This specification can also be found on the official SRD website

## 2.10 Additional testing, Part 15 subpart B disclaimer

The final host / module combination need to be evaluated against the FCC Part 15B criteria for unintentional radiators in order to be properly authorized for operation as a Part 15 digital device .

The host integrator installing this module into their product must ensure that the final composite product complies with the FCC requirements by a technical assessment or evaluation to the FCC rules, including the transmitter operation and should refer to guidance in KDB 996369.

### Frequency spectrum to be investigated

For host products with certified modular transmitter, the frequency range of investigation of the composite system is specified by rule in Sections 15.33(a) (1) through (a)(3), or the range applicable to the digital device, as shown in Section 15.33(b)(1), whichever is the higher frequency range of investigation.

# Operating the host product

When testing the host product, all the transmitters must be operating. The transmitters can be enabled by using publicly-available drivers and turned on, so the transmitters are active. In certain conditions it might be appropriate to use a technology-specific call box (test set) where accessory devices or drivers are not available.

When testing for emissions from the unintentional radiator, the transmitter shall be placed in the receive mode or idle mode, if possible. If receive mode only is not possible then, the radio shall be passive (preferred) and/or active scanning. In these cases, this would need to enable activity on the communication BUS (i.e., PCIe, SDIO, USB) to ensure the unintentional radiator circuitry is enabled. Testing laboratories may need to add attenuation or filters depending on the signal strength of any active beacons (if applicable) from the enabled radio(s). See ANSI C63.4,ANSI C63.10 and ANSI C63.26 for further general testing details. The product under test is placed into a normal 'paired' mode with another BLE device, as per the normal intended use of the product (for example, transferring data).

### FCC Warning

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

#### FCC Radiation Exposure Statement:

This equipment complies with FCC 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.