

Digital high frequency microwave sensor LX-WB2 specification

◆ Product Overview

The digital high frequency microwave sensor is used to detect moving human signals through the Doppler principle, including two parts: First, high frequency 5.8GHz microwave transceiver module, working in the C-band international common frequency, with lower wireless link propagation loss than X and K band, the module uses a needle antenna, integrated microwave oscillator and detector inside the module, with higher integration, the module directly outputs low impedance Doppler signal, transmitting power is only about 0.025mW. Does not have any impact on the human body, the module through the United States FCC Part 15 Section 15.245 and the European CER& TTE EN 300440-1 V1.6.1 EN 300440-2 V1.4.1 certification; Second, MCU master circuit module, receives and amplifies the Doppler signal generated by the 5.8GHz microwave module, and then sends it to the MCU master chip for processing, in order to control the load switch state, because the signal processing is in the form of digital, making the product false positive rate is very low. The product signal output terminal directly outputs the high and low level signal, the user can directly use the signal, no need to develop the amplifier circuit again, easy to use, costeffective.

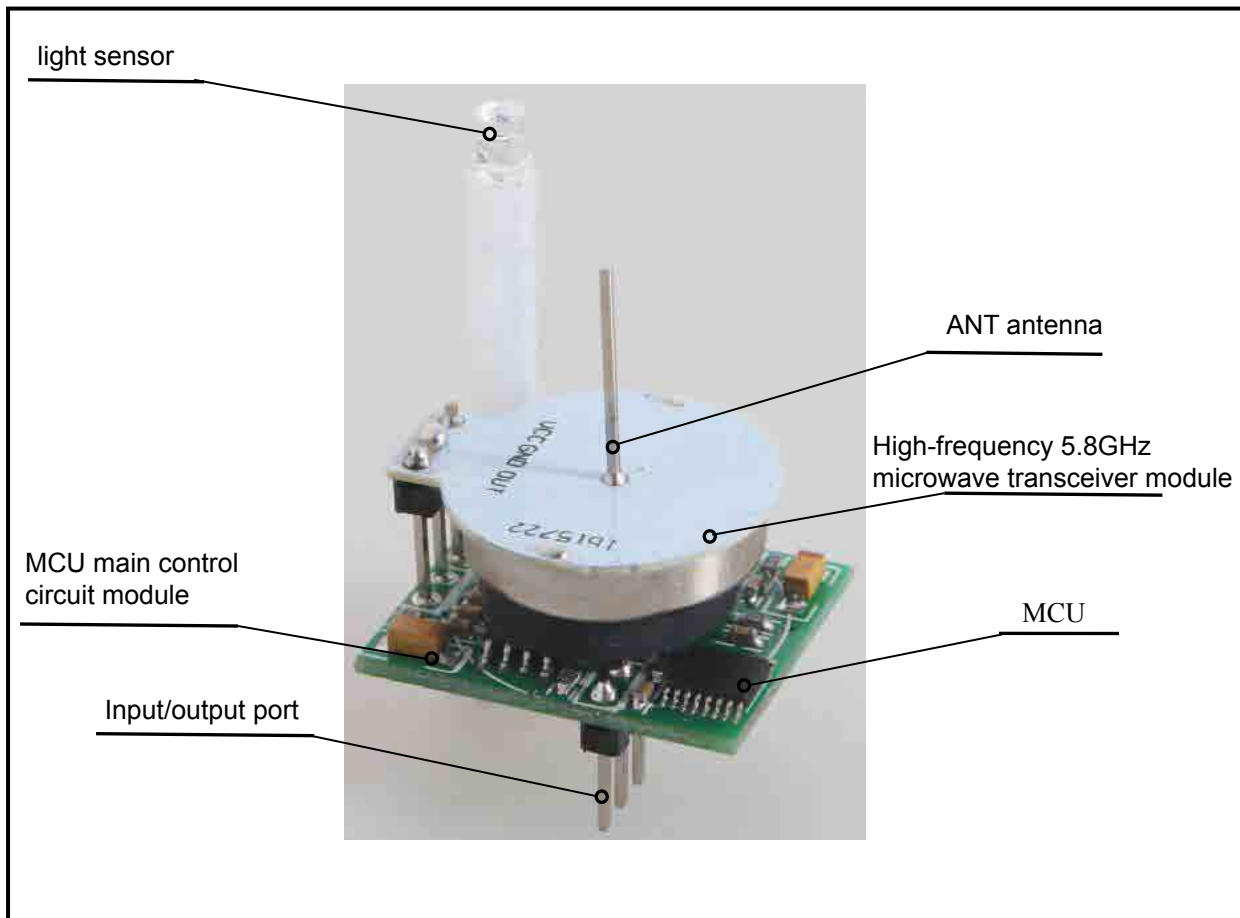


Figure 1 Schematic diagram of the product

◆ Features

- Digital signal processing.
- Strong resistance to radio frequency interference
- The transmitting power is only about 3.54dBm, which does not cause radiation damage to the human body
- Uniform detection area
- Low voltage, low power consumption, enter the working state immediately after starting
- Automatic recognition of external light control value, to achieve no induction during the day, induction at night
- Human body induction, repeated trigger
- Output high and low level signal, easy to use
- Small volume, easy to use with other circuits

◆ Application

- LED bulb light
- Automatic turning on and off of indoor lights, corridor, stair lights, etc
- Induction light
- lot sensors
- Toys
- Network camera
- LAN monitor
- Private alarm
- Intrusion Detection

◆ Wiring instructions

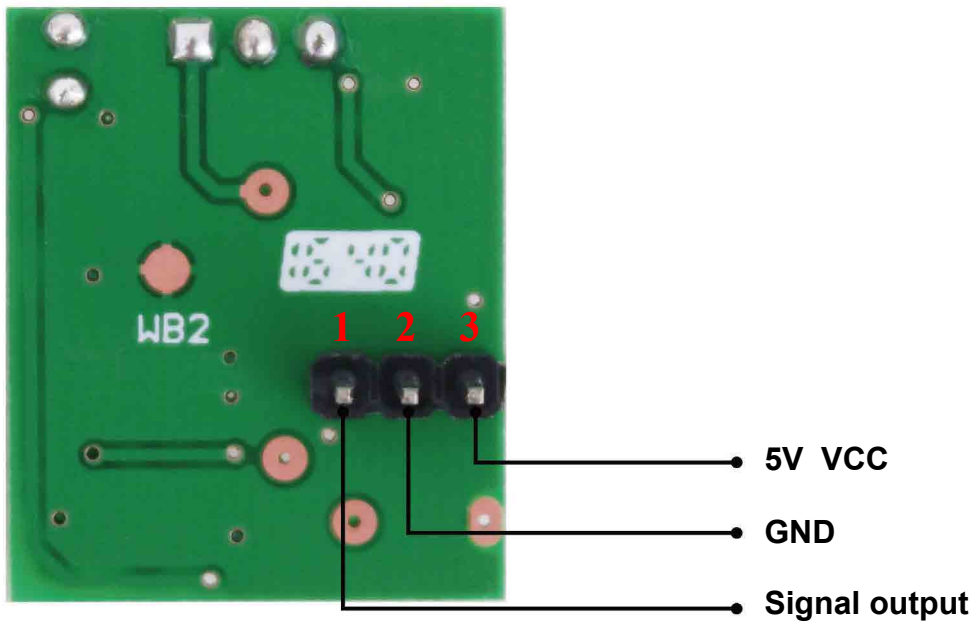


Figure 2 Wiring instructions

- 1: Signal output
- 2: GND
- 3: DC5V

◆ **Performance parameters**

1、 **The rating**

Frequency	(In accordance with FCC Part 15 Section 15.245, CE-R&TTE EN 300440-1 V1.6.1 EN 300440-2 V1.4.1)
Transmit power	About 3.54dBm
Voltage	DC 5V
Current	15mA Max.

Output signal	5V / 0V high and low level
Sensing distance	8m max (radius)
Sensing angles	360°
Light control	Less than 10LUX induction (naked)
Delay time	40 s ± 3 s
Operating ambient temperature	-20 °C ~ 105 °C
Storage environment	Temperature 5 ~ 40°C, humidity 20 ~ 70%
Size	Figure 9
Module weight	About 4.7g

Table 1 Rated parameters

◆ Internal block diagram

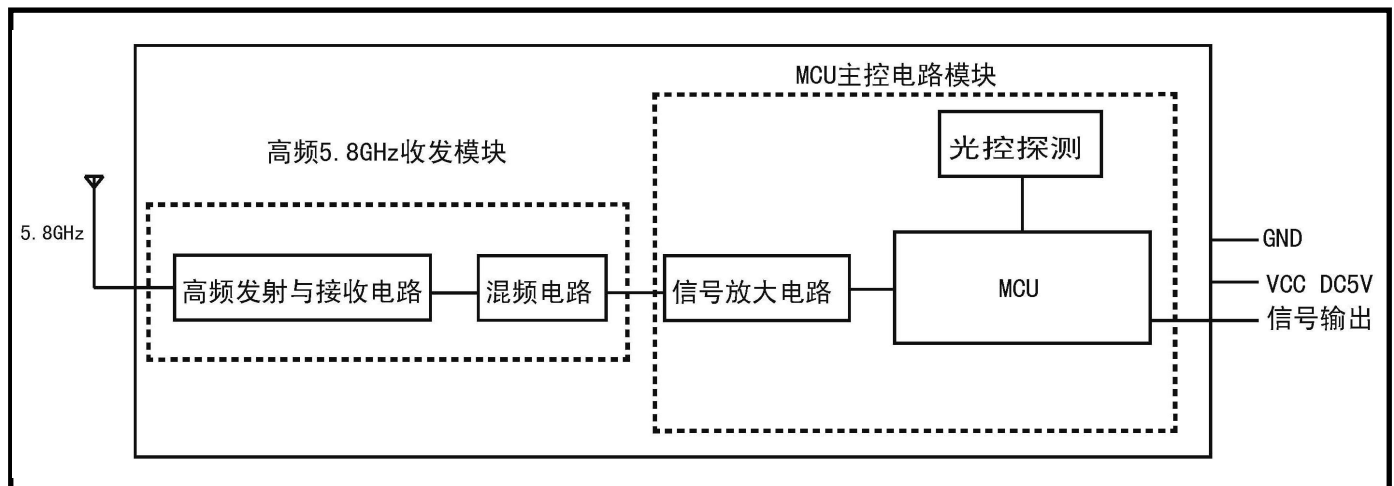


Figure 3 Internal block diagram

◆ Detection perspective

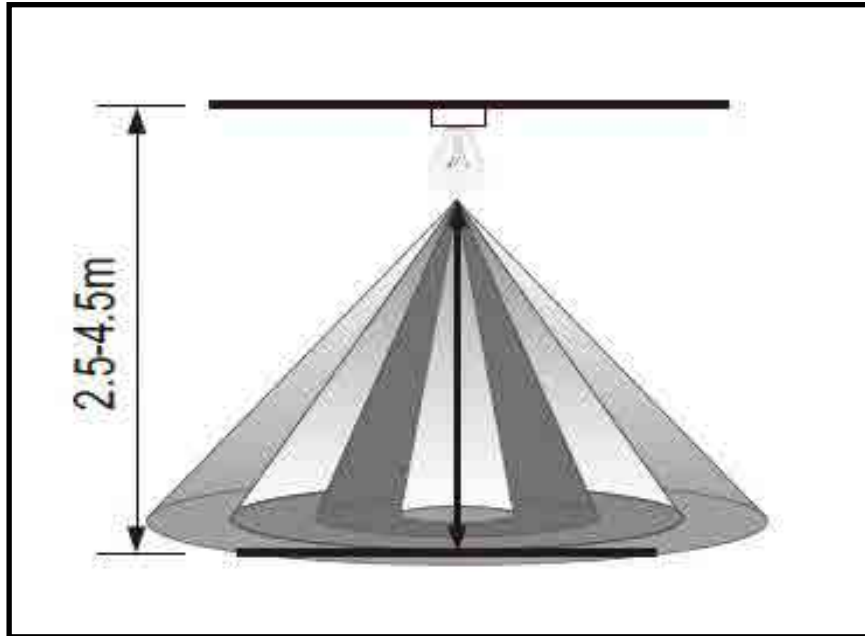


Figure 5 Installation height diagram

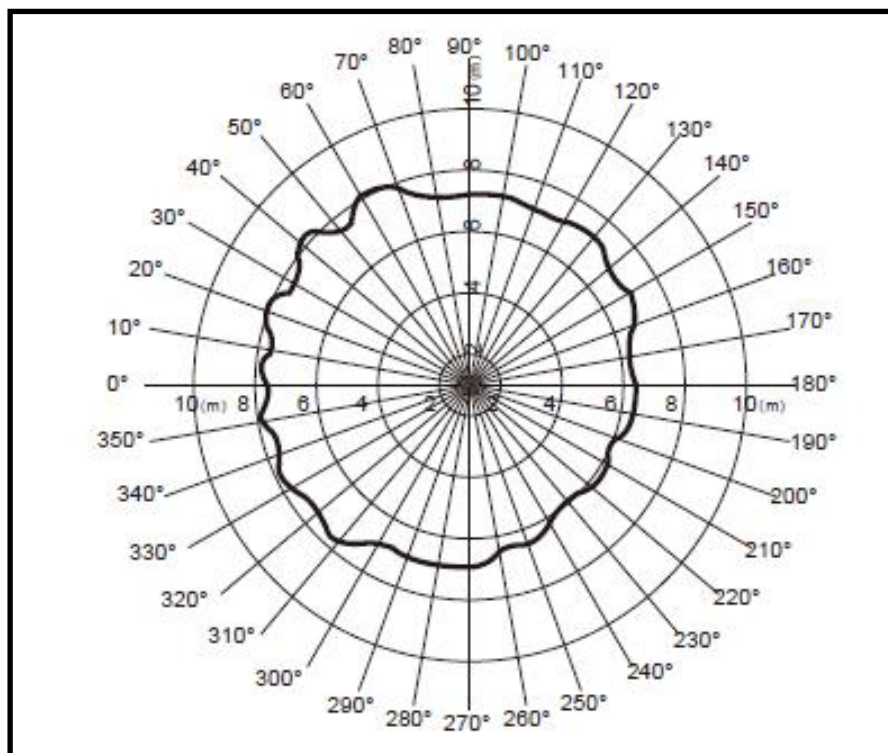


Figure 6 Schematic diagram of sensing distance

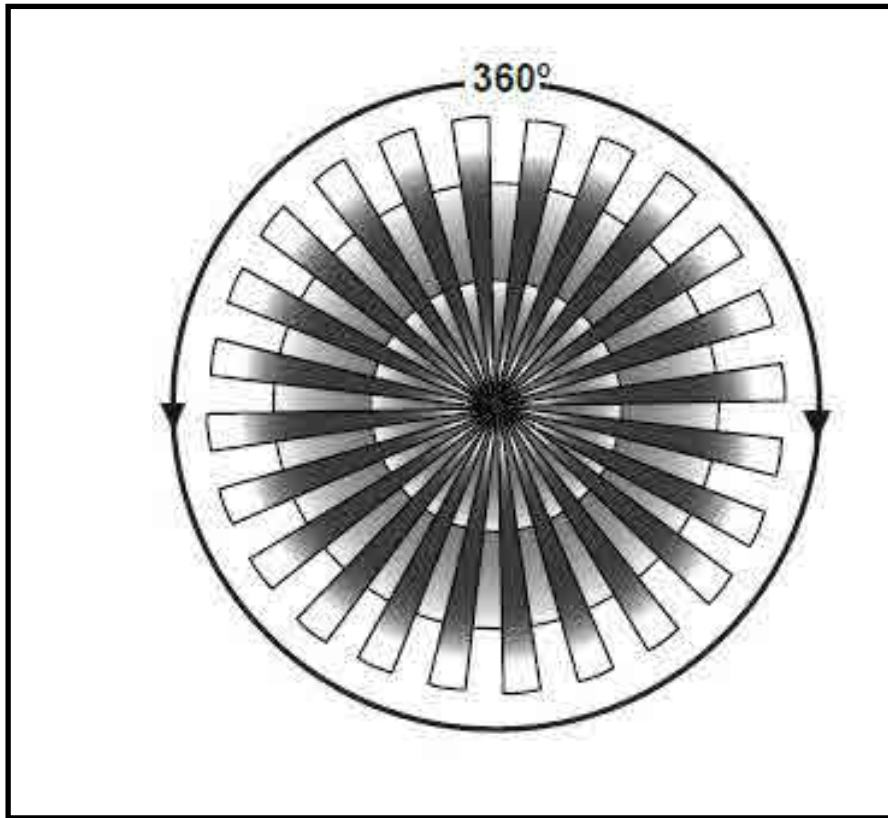


Figure 7 Schematic diagram of induction Angle

◆ Typical application circuit

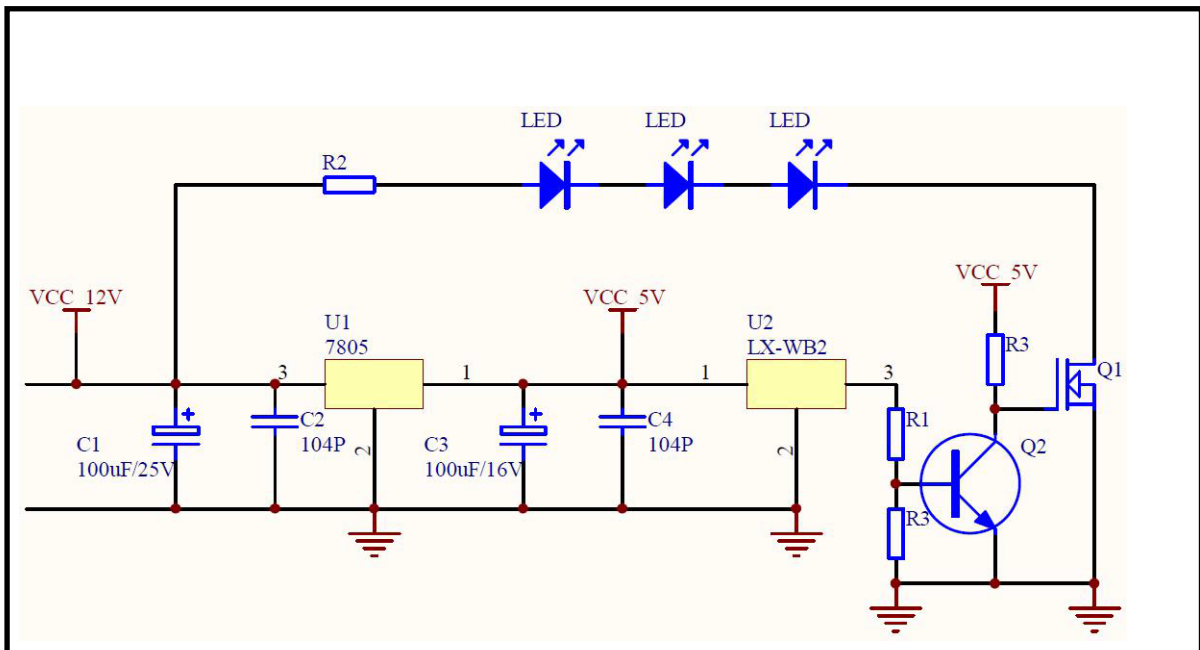


Figure 8 Schematic diagram of typical application circuit

◆ SIZE

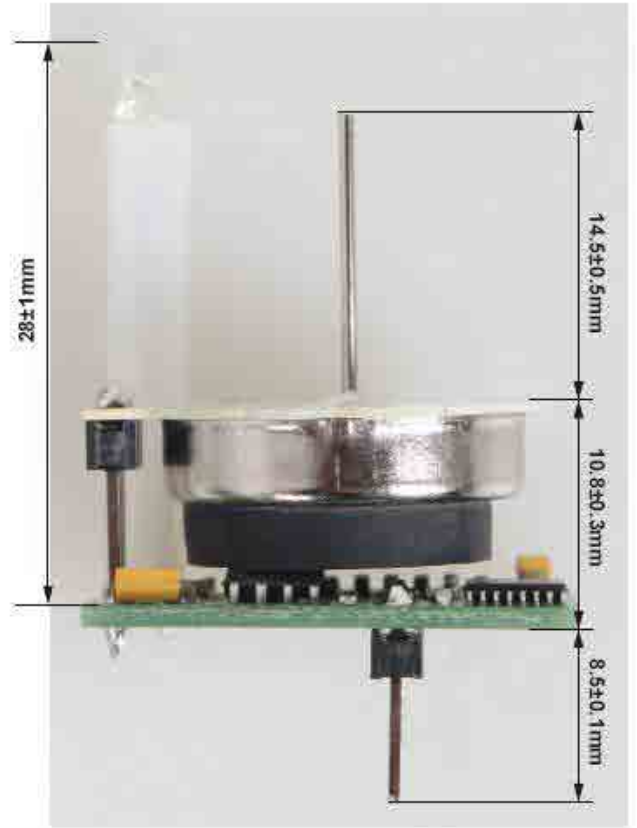
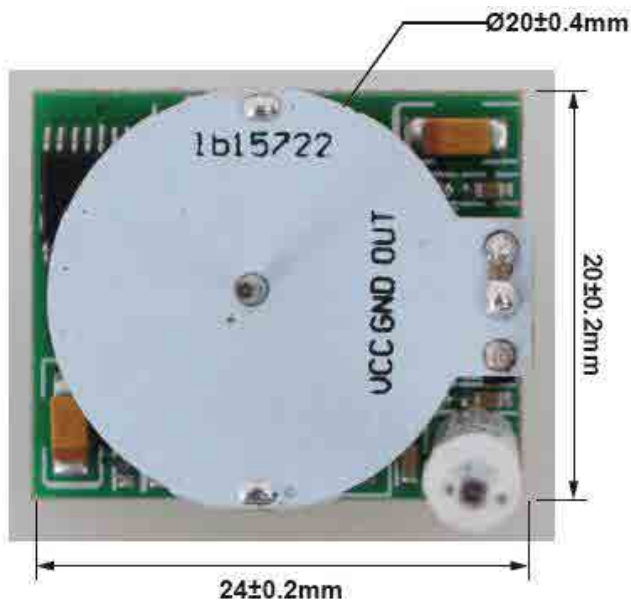


Figure 9 External dimensions