1. Product introduction

LD2410C is a highly sensitive 24GHz human presence sensing module developed by Hailingco Electronics. Its working principle is to use FMCW FM continuous wave to detect the human target in the set space, combined with radar signal processing, accurate human sensing algorithm, to achieve high It can identify the human body in motion and at rest, and calculate the distance of the target and other auxiliary information.

This product is mainly applied in indoor scenes, sensing whether there is a moving or slightly moving human body in the area, and outputting the detection results in real time. The farthest sensing Distance up to 5 meters, distance resolution 0.75m. provide visual configuration tools, can easily configure the sensing distance range, different zones of sensing The visual configuration tool can easily configure the sensing distance range, sensing sensitivity and unmanned delay time in different zones to suit different specific application requirements.

Support GPIO and UART output, plug-and-play, can be flexibly applied to different intelligent scenarios and end products
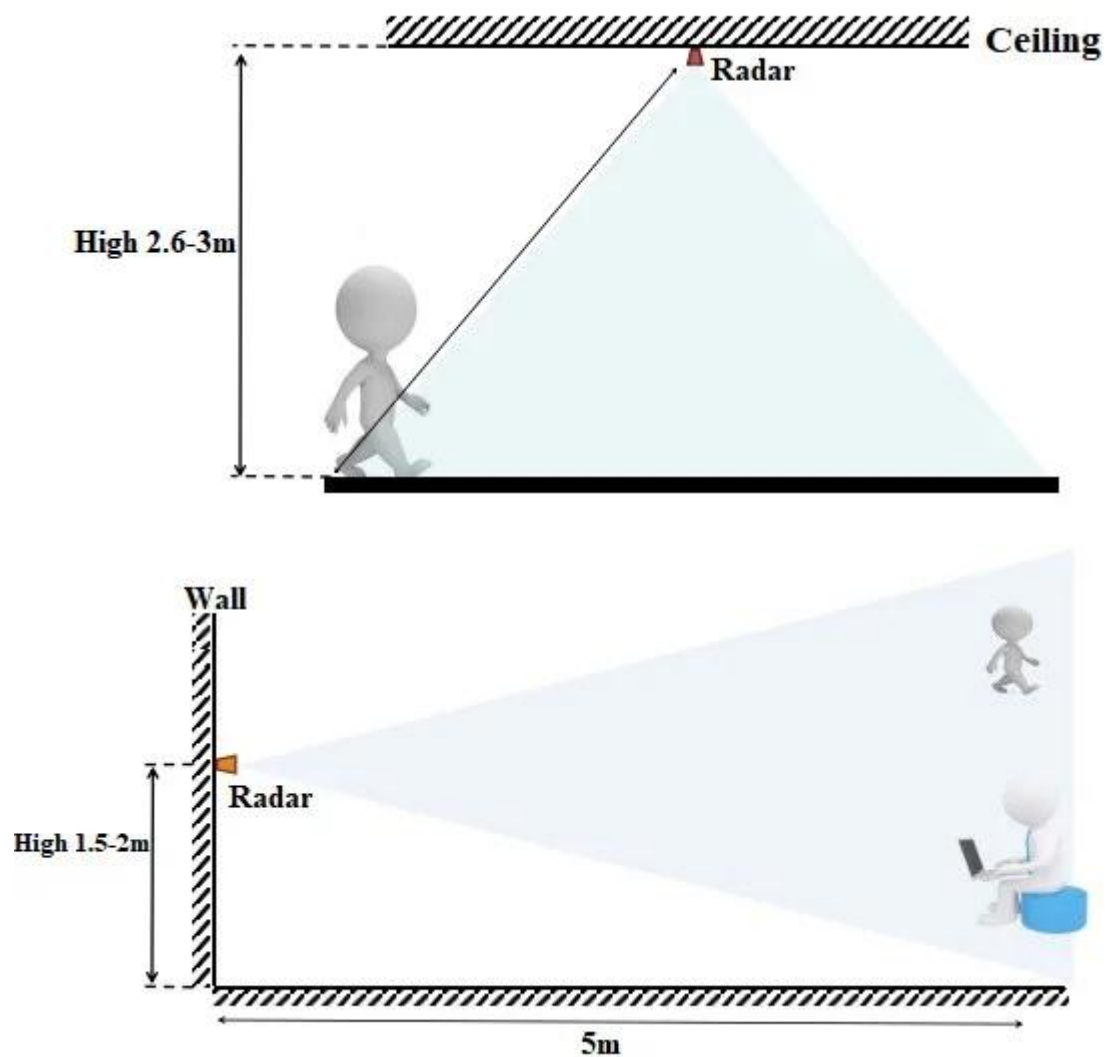
2. Product features and benefits

2.1 Features

● Plug and play, easy assembly
● The longest sensing distance is up to 5 meters
● Large detection angle, coverage up to ±60 degrees
● Accurate identification within the interval, support the division of the sensing range, and shield the interference outside the interval
● Multi-level intelligent parameter adjustment can be realized through Bluetooth or serial port to meet the needs of scene changes

- Visual debugging and configuration tools
- Small and simple, the minimum size is only 16mmx22mm
- Supports various installation methods such as ceiling hanging and wall hanging
- 24GHz ISM band, can be certified by FCC and CE spectrum regulations
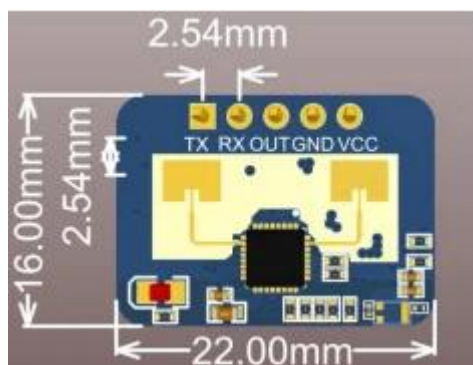- The ultimate cost-effective choice

3. Application scenarios

LD2410C human body sensing module adopts 24GHz millimeter-wave radar sensor technology. Compared with other solutions, it has obvious advantages in human body sensing applications:

1. In addition to sensitive sensing of moving human body, for the traditional solution can not identify the static, micro-movement, sitting and lying human body can also be sensitive sensing.
2. Good environmental adaptability, the sensing effect is not affected by the surrounding environment such as temperature, brightness, humidity and light fluctuations.
3. good shell penetration, can be hidden inside the shell work, no need to open holes in the product surface, improve the product aesthetics.
4. flexible configuration of the farthest sensing distance and the sensitivity on each distance door, to achieve flexible and fine personalized configuration.
5. With Bluetooth function, you can use the APP to debug the radar parameters directly without catching the serial port

4. Hardware Description

4.1 Features

Module size: 16mmx22mm, 5 pin holes reserved for hardware (factory default with pins)
Pin hole diameter 0.9mm, pin pitch 2.54mm