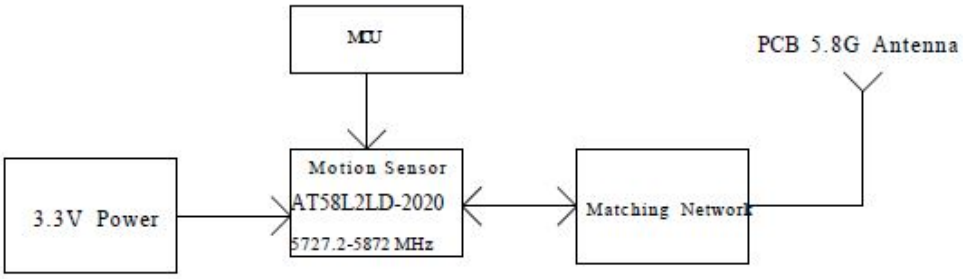
1. Block Diagram



2. Working Principle

A. The AT58LP1T1RDB(AT58MP1T1RDB) chip generates microwave signals inside the chip, and then amplified and radiated out by the antenna, the signal in the air encountered objects reflections. When the object is in motion, the reflected signal and the transmitted signal between the existence of a certain frequency difference, that is, the Doppler effect, the received reflected signal and the transmitted signal mixing, you can get the corresponding intermediate-frequency signals, analysis of the intermediate-frequency signals can be inverted out of the object motion information, thus realizing the sensing function.

B. The AT58LP1T1RDB(AT58MP1T1RDB) chip and MCU communicate through IIC setting parameter way, modify the MCU internal program parameters which can debugged sensing distance and sensing output time.

3. Feature Description

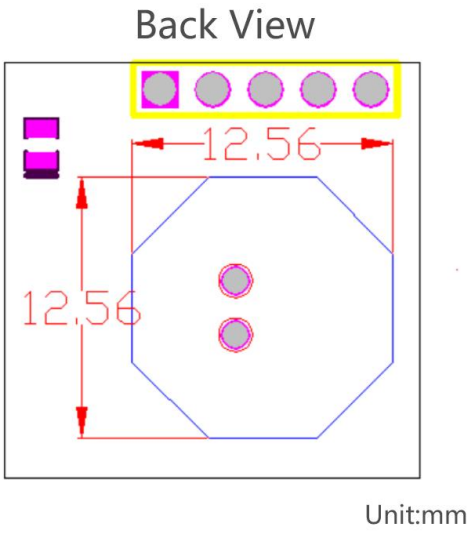
A. Microwave radar module with DC3.3V power supply.
B. Typical output power is up to -2dBm .
C. Operates in 5727.2-5872 MHz ISM band

4. Antenna Information

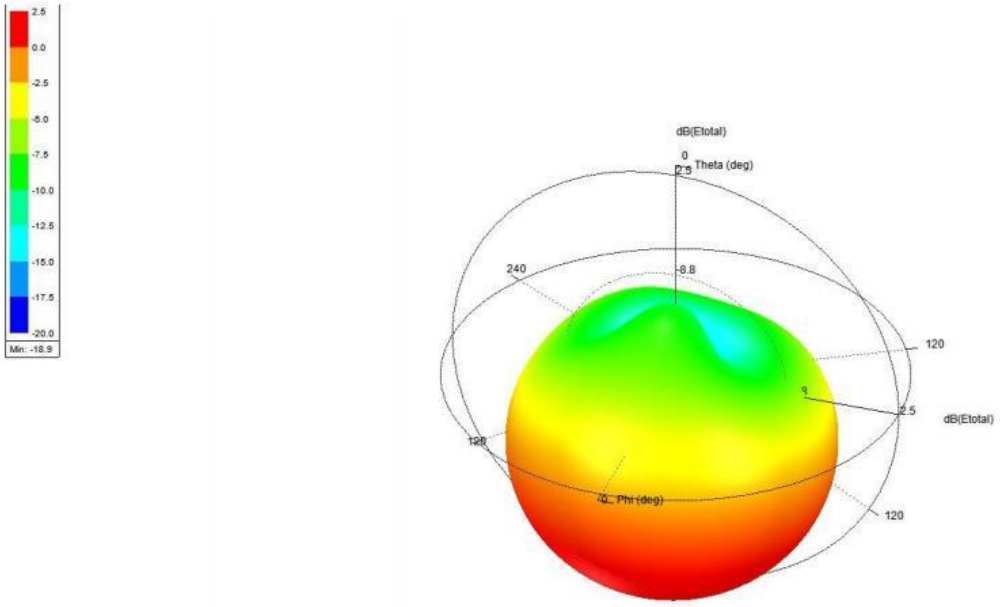
A. Antenna Specification

Design Specification	Typical Data
Antenna Type*	Patch
Working Frequency	5.8GHz
Antenna Gain	2dBi
Impedance	50ohm
Overall Dimensions*	12.56mm*12.56mm

B. Schematic



C. 3D Antenna Gain



D. 2D Antenna Gain

Name	Theta	Ang	Mag
m1	-150.0000	-150.0000	1.0234
m2	150.0000	150.0000	1.4572
m3	-180.0000	-180.0000	2.3585
m4	-120.0000	-120.0000	-2.2911
m5	120.0000	120.0000	-1.2805