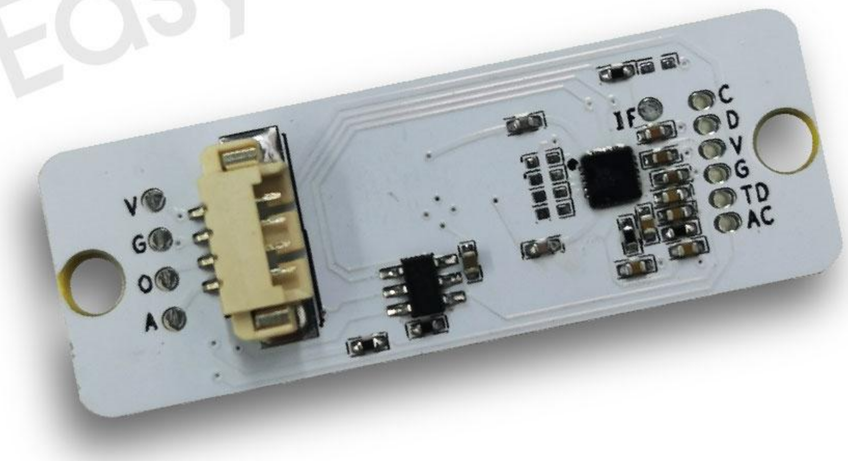
深圳市易探科技有限公司
Shenzhen EasyDetek Technology Co.,Ltd

EasyDetek易探

EDC103C Specification

5.8GHz Ultra Low Power Series Modules



Product Features

- Self-contained logic algorithms for single bus protocols
- Ultra-low power consumption 21±2uA
- Small size, structural design for smart locks

Electrical Parameters

Input Voltage	3.3V
Operating Current	21±2uA
Output Voltage	3.3V±0.1V
Output Signal	IO

Functional Parameters

Motion Sensing Radius ①	0.3-2m(tunable)
Hanging height	directly facing 1.2m
Delay Time	2s

Output Parameters

Operating frequency	5.8GHz±75MHz
3dB Beam Angle	79.7° (XZ plane) 128.7° (YZ plane)

Environment & Lifespan

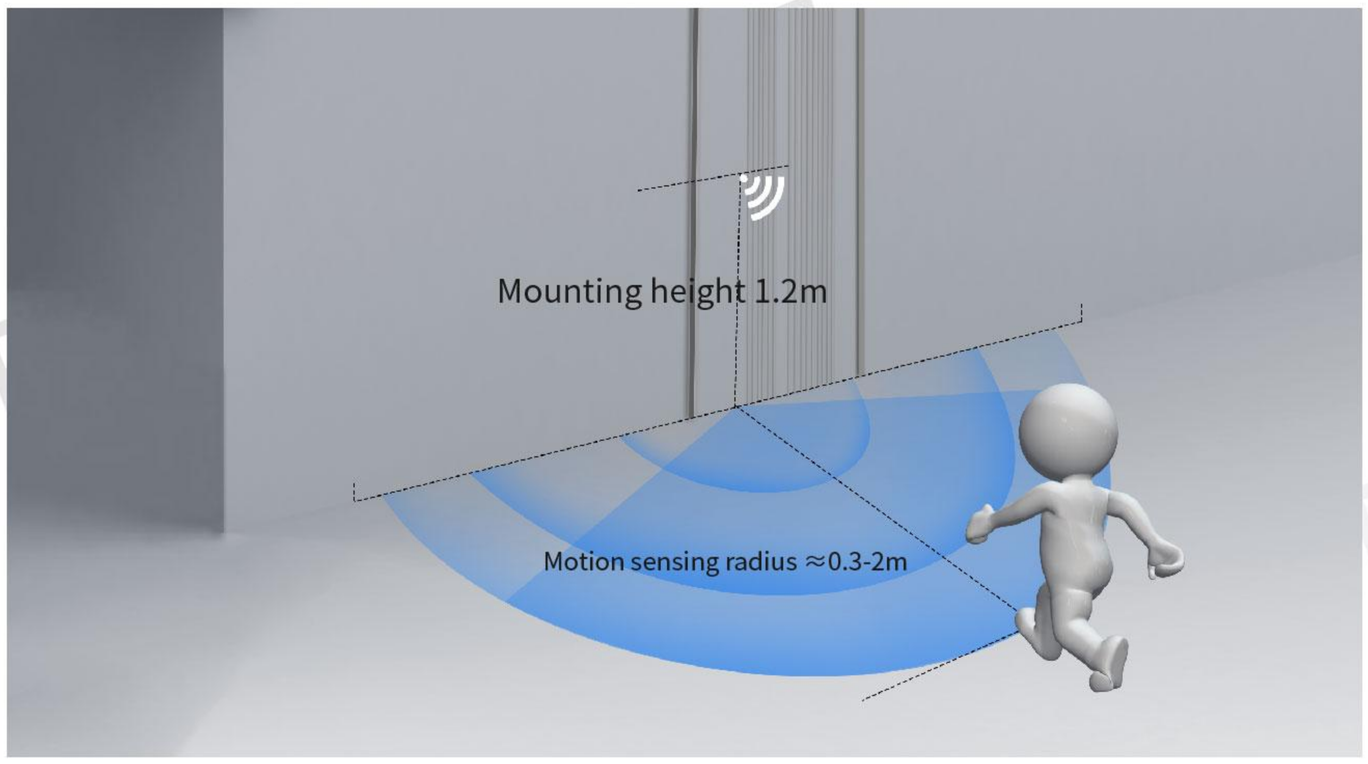
Operating Temperature	-20~+85°C
Storage Temperature	-20~+105°C

Remarks:

① test distance range is to the sensor hanging height of 1.2m, indoor installation environment test, the test person height 170cm, weight 65-75kg, walking speed 1m/s.

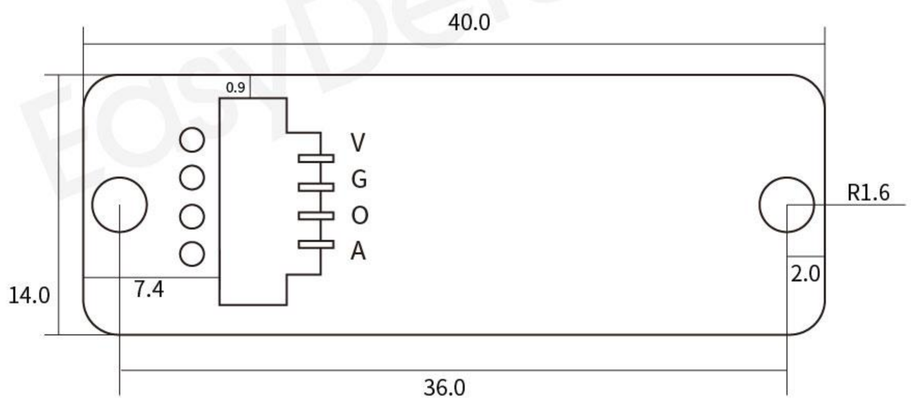
Different scenarios may cause changes in the range of installation, subject to the actual test.

Detection Schematic



Dimension Drawing /

Sizeunit：mm

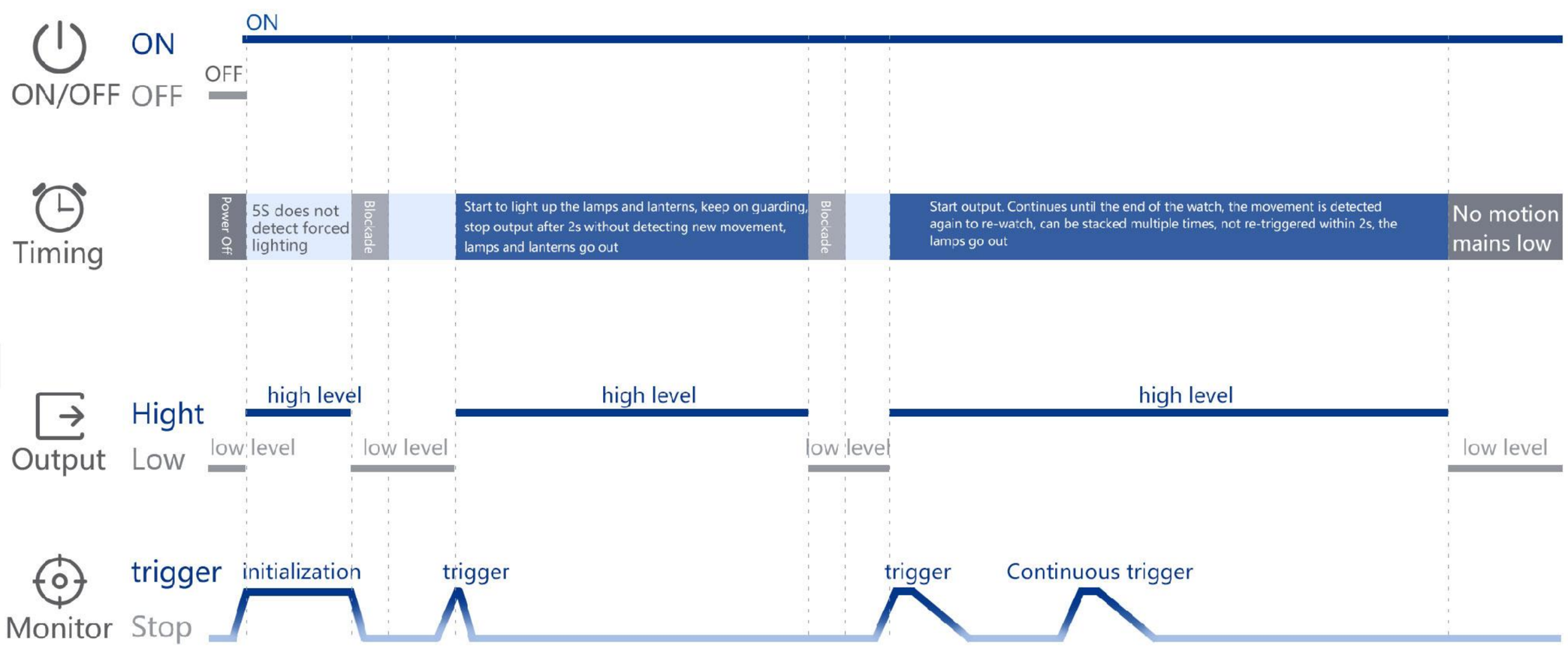


EDC103C Dimensional tolerance: ±0.2

Pin Description

Pin	Description
V	Power supply port 3.3V
G	Groundings
O	Output pin
A	Single bus communication pins

Timing Diagram



Application Scenarios/Products

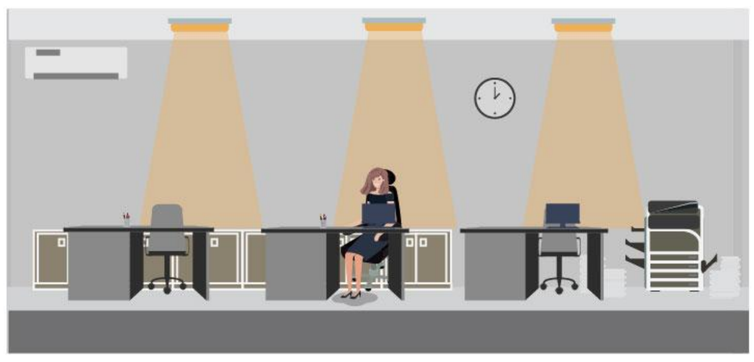
corridors

entrance hall

Intelligent door locks

peephole

Functional Description



When the sensor detects a moving object, the light automatically lights up and enters the set delay time

After the delay time, if the sensor cannot detect the moving object, the light fixture will turn off

Product Naming Law

ED	Frequency Band	Product Categories	Product Subdivision	Product Number	Delay Time	Serial number
ED	C	1	0	3C	N	
EasyDetek	C 5.8GHz	1 Microwave sensor module	0 Ultra-low-power series	0-9, A-Z	Y Has light sensor	
	X 10.5GHz	2. Microwave radar switch	1 Flagship series		N no light sensor	
	Q 24GHz	3 Radar antenna	2 Short-distance series		P programmable	
	V 60GHz	4 MCU	3 Adjustable series			
	W 77GHz	5 Microwave power supply	4 External antenna series			
		6 IC	5 General Series			
		7 Other	6 To be defined			
		8 Networking	7 To be defined			
			8 Basic series			
			9 High altitude series			

Configuration Version Description

【material number】:EDC10C-N-01

【hardware】:

【software】:

Historical Revision Record

Version	Time	Description	Note
V1.0	2024-11-18	First edition	-

Precautions

1. When installing the product, it is recommended to maintain a distance of 5-12mm between the antenna board and the metal plane, and not to tightly adhere or touch the metal plane.
2. The product has good penetration effect on plastic and wood materials. It is recommended not to install metal, glass, or ceramic in front of the antenna to avoid affecting the actual sensing effect.
3. Please use a power supply with low ripple to avoid sensor interference and false alarms. It is recommended to ensure that the power supply ripple is within 50mV-100V.
4. When multiple radar sensors are applied in the same site, it is recommended that the installation distance of the product be greater than 2m. Installing too close may result in occasional false alarms from individual sensors.
5. The radiation surface of the antenna should avoid being covered by high current circuits to prevent interference with the normal radiation of the antenna, leading to false alarms or changes in the sensing range.
6. When microwave sensors are used in conjunction with wireless communication modules (NB, Bluetooth, WIFI, 2.4G modules), they should be spaced apart. It is recommended to maintain a distance of at least 1m from high-power wireless communication devices such as routers and wireless hotspots during installation.
7. The light sensitivity threshold is the test value under clear weather conditions, no shadows, and diffuse reflection of ambient light.
8. The antenna surface of microwave sensors should avoid facing directly towards the driving power supply, and should also be kept as far away as possible from high-power components such as rectifier bridges, transformers, and switching tubes of the driving power supply to avoid false alarms.
9. EasyDetek Technology is committed to providing customers with high-quality and better experience radar sensors. Product version updates and iterations will not be notified separately.