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

EasyDetek易探

EDC18G Specification

5.8GHz Basic Series Modules

Product Features

- Adoption of self-branded radar IC
- Small size, 16x16mm
- Meet the hanging height of 3m, adjustable sensing distance
- Support dimming, fading in and out

Electrical Parameters

Input Voltage	5-8V
Operating Current	11±1mA
Output Voltage	3.3V
Output Signal	IO/PWM
Power Consumption	＜0.5W

Functional Parameters

Motion Sensing Radius ①	2-4m
Hanging height	Regular 3m
Delay time ②	30s

Output Parameters

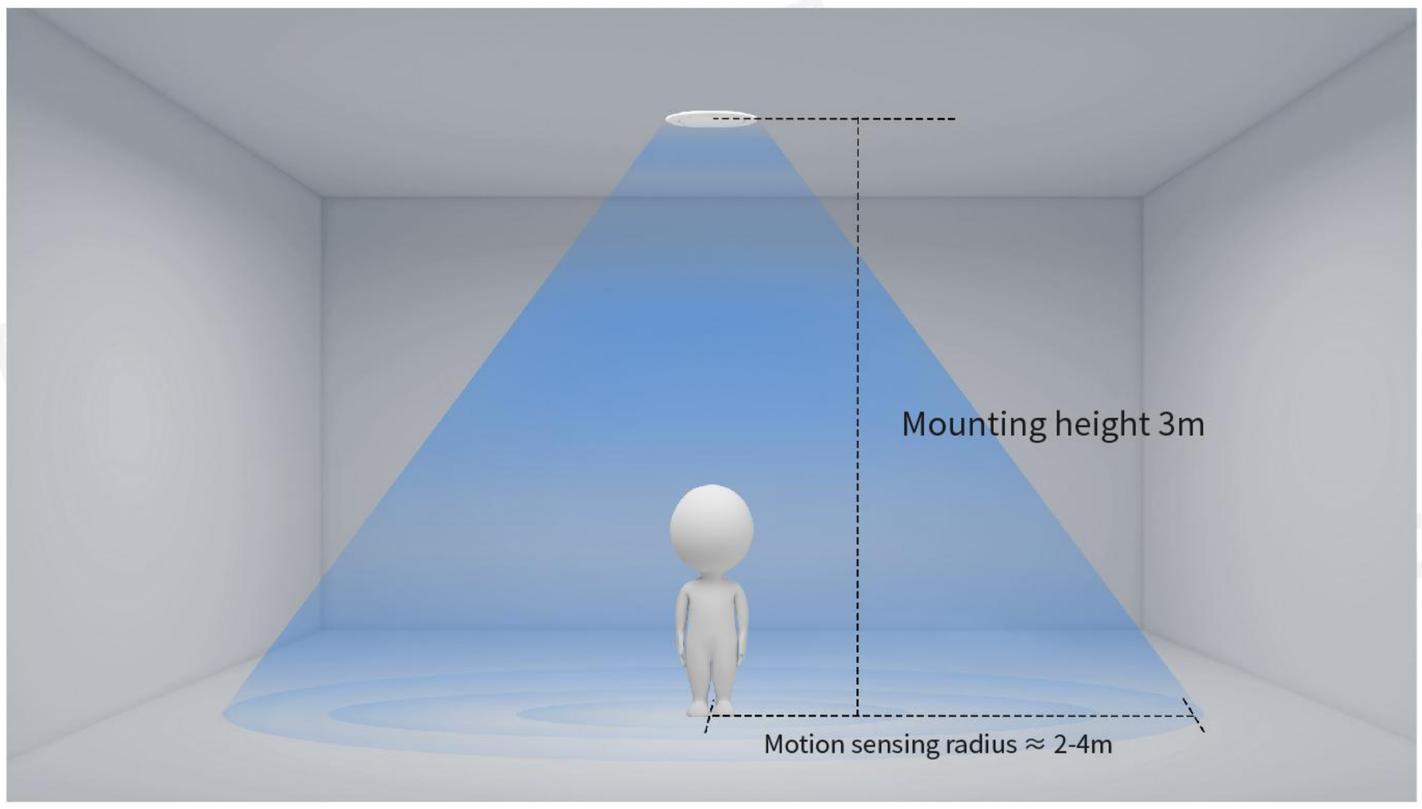
Center frequency	5.8GHz
3dB Beam Angle	97° (XZ plane) 99° (YZ plane)

Environment & Lifespan

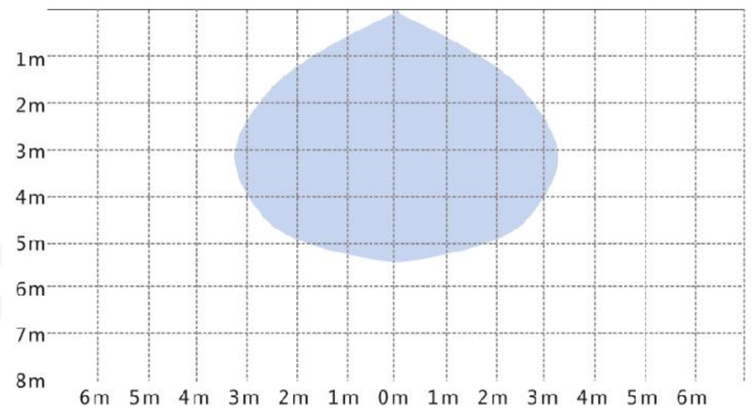
Operating Temperature	-20~+85°C
Storage Temperature	-20~+105°C

Remarks:
① The test distance range is based on the sensor hanging height of 3m, indoor installation environment test, the test person is 170cm tall, weight 65-75kg, walking speed 1m/s.
Different scenarios may cause changes in the range of installation, subject to the actual test.
② Due to the spectral characteristics of the photosensitive device, the threshold is uniformly tested under natural light conditions.

Detection Schematic



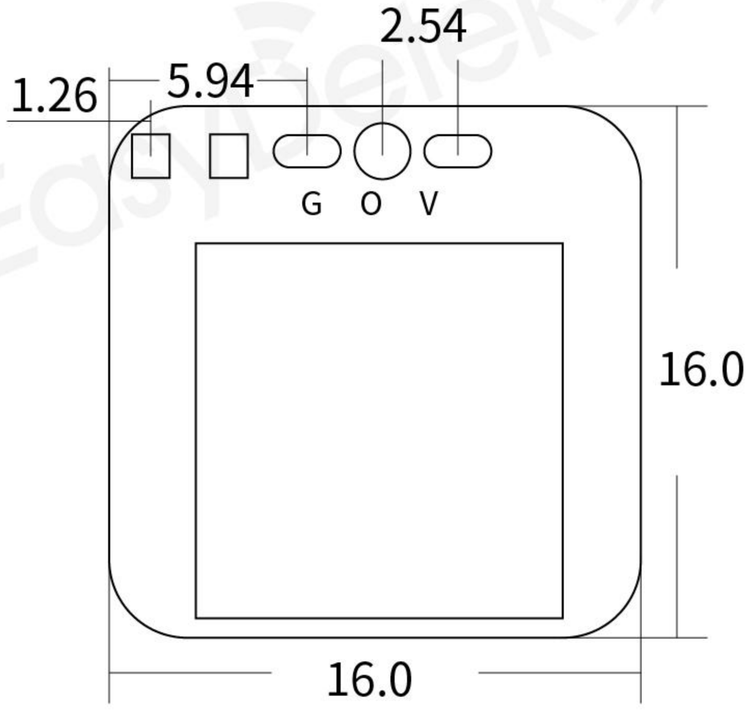
Radar Sensing Schematic



Motion sensing radius ≈ 2-4m

Dimension Drawing / Pinout

Size unit：mm

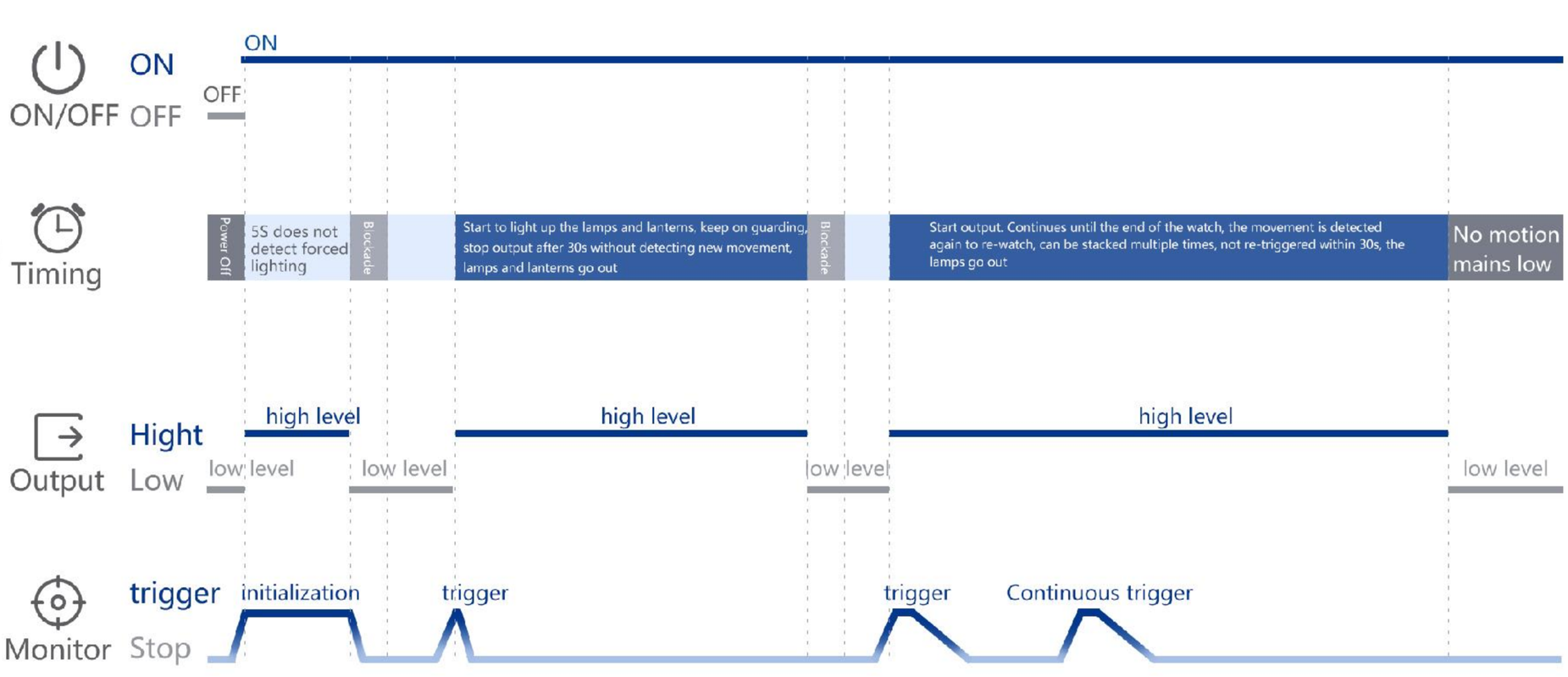


EDC18G Dimensional tolerance: ±0.2
Welding hole of the row of pins：ϕ0.9

Pin Description

Pin	Description
G (GND)	Groundings
O (Output)	Output IO/PWM
V (VIN)	Power supply 5-8V

Timing Diagram



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Application Scenarios/Products

corridors

elevator shaft

flight of stairs

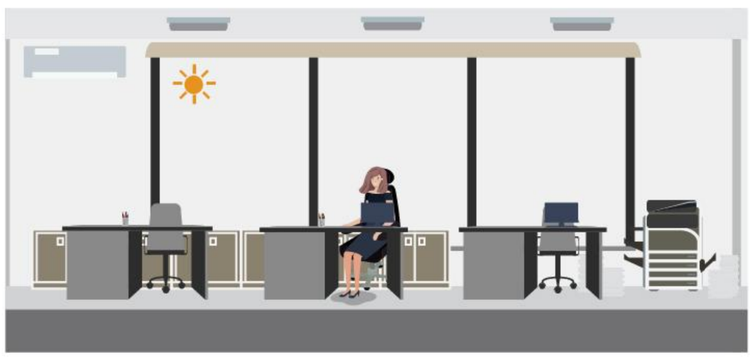
bulb

downlights

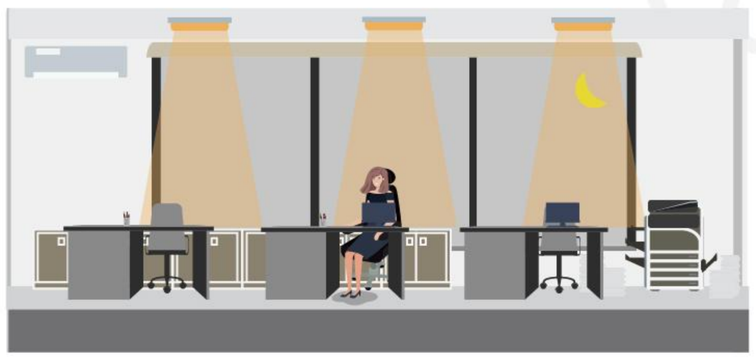
ceiling lamp

T-tube lamp

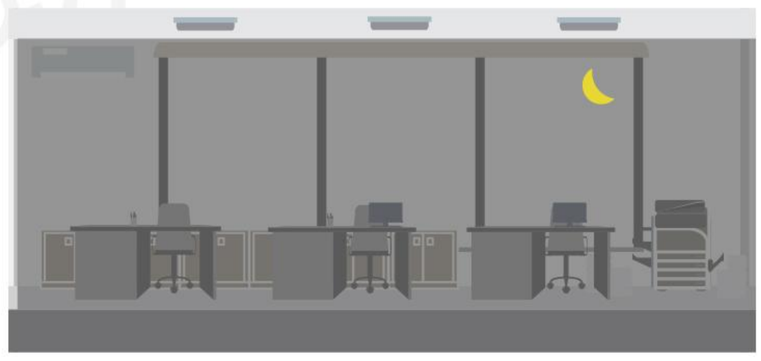
Functional Description



After initialization is complete, when the ambient light is sufficient, the sensor detects moving objects and the light will not automatically turn on



When the ambient light is insufficient, the sensor detects moving objects and the light automatically lights up



The moving object leaves, and after a preset delay, t he light will automatically turn off

Product Naming Law

ED	Frequency Band	Product Categories	Product Subdivision	Product Number	Delay Time	Serial number
ED	C	1	8	G	Y	
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

【hardware】:

【software】:

Historical Revision Record

Version	Time	Description	Note
V1.0	2024-04-11	First edition	-
V1.1	2024-05-07	Updated photosensitive logic	-
V1.2	2024-10-09	Product Dimension Drawing	-

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.