# 24GHz High Performance Series Radar Sensors
# EDQ15LG-Y-01 Specfication

Smarthome

Smart Lighting

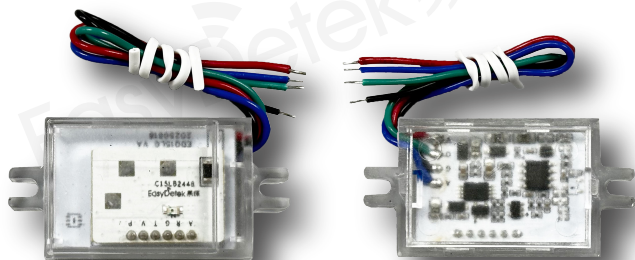Smart Business

Healthcare and recreation

EasyDetek Technology, Human Habitation Detection Radar

# EDQ15LG-Y-01

## ⌘ Product Features

- ■ **Support ambient light detection**
- ■ **Small form factor, easy structural layout, no shadows and no light blocking.**
- ■ **12VDC power supply, 0~10V analog signal output, support 0~100% dimming**
- ■ **Support knob dimming input (0~10V), taking into account the traditional user habits**
- ■ **24G radar and bluetooth integrated design, support wechat small program control**
- ■ **Multi-level intelligent parameterization to meet the needs of different scenarios**
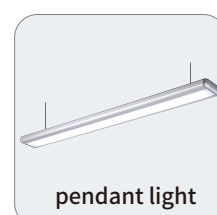- ■ **High sensitivity design, support motion, micro-motion, presence human detection**
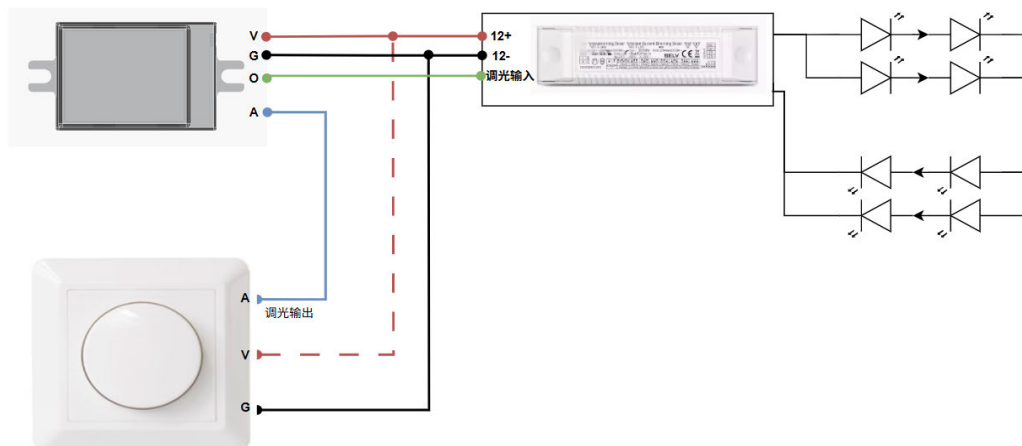
## ⌘ Application Scenarios/Products
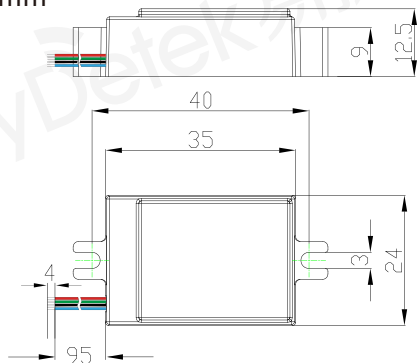
### LED DRIVER
0~10V DIM

**+**

EDQ15LG

panel light

ceiling light

pendant light

## ⌘ Wiring Instructions



V
G
O
A

12+
12-
调光输入

调光输出

A
V
G

## 📶 Product Dimension Drawing

Size unit：mm

EDQ15LG-Y-01 Dimensional tolerance: ±0.2
Input and output lead wire gauge: 26AWG

## 📶 Pin Description
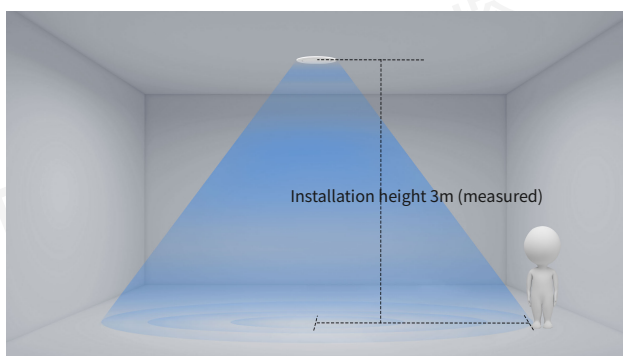
| Pin | Description |
|---|---|
| V（red) | +12VDC input |
| O (green) | 0~10V dimming signal output |
| G (black) | GND ground |
| A (blue) | ADC sampling for 0~10V dimming signal input |

## 📶 Electrical Parameters

| | |
|---|---|
| Knob input voltage | 0~10V |
| Operating input voltage | 10.6~12.6V |
| Operating current | 45~60mA |
| Operating frequency | Typical 24.125 GHz |
| 3dB beam angle | 80° (XZ plane) 102° (YZ plane) |

## 📶 Functional Parameters

| | |
|---|---|
| Sensing radius [1] | 5m Max |
| Hanging height | 3m |
| Delay time | Default 30s, 5s~1800s adjustable |
| Distance accuracy | ±20cm |

## 📶 Output Parameters

| | |
|---|---|
| Output voltage | 0~10V DC |
| | |
| | |

## 📶 Environment & Lifespan

| | |
|---|---|
| Operating temperature | -20 ~ +85°C |
| Storage temperature | -20 ~ +105°C |

## 📶 Detection Schematic

Installation height 3m (measured)

## 📶 Schematic of sensing range[1]

Unit: m

motion    presence

Hanging height 3m actual test

Remarks:

① The test distance range is based on the sensor indoor installation environment, hanging height 3m test, the height of the test person 170cm, weight 65-75kg, walking speed 1m / s.
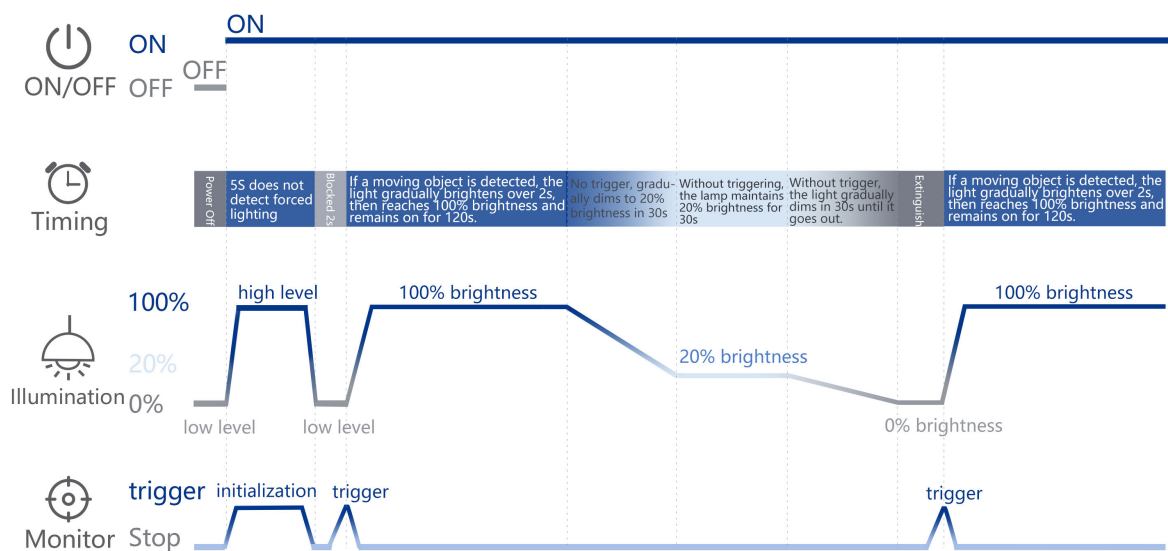
Different scenarios may cause changes in the range of installation, subject to the actual test.

## Timing diagram



| | | | | | | | |
|---|---|---|---|---|---|---|---|
| ON/OFF | ON — OFF | | | | | | |
| Timing | Power Off | 5S does not detect forced lighting | Blocked 2s | If a moving object is detected, the light gradually brightens over 2s, then reaches 100% brightness and remains on for 120s. | No trigger, gradually dims to 20% brightness in 30s | Without triggering, the lamp maintains 20% brightness for 30s | Without trigger, the light gradually dims in 30s until it goes out. | Extinguish | If a moving object is detected, the light gradually brightens over 2s, then reaches 100% brightness and remains on for 120s. |
| Illumination | 100% / 20% / 0% | high level / low level | low level | 100% brightness | | 20% brightness | | 0% brightness | 100% brightness |
| Monitor | trigger / Stop | initialization | trigger | | | | | trigger | |

## Functional Description

After initialization is completed, when there is sufficient ambient light, the radar detects the presence or movement of targets, and the light will not automatically light up.

When the ambient light is insufficient, the radar detects a moving target and the light gradually brightens to 100% brightness.

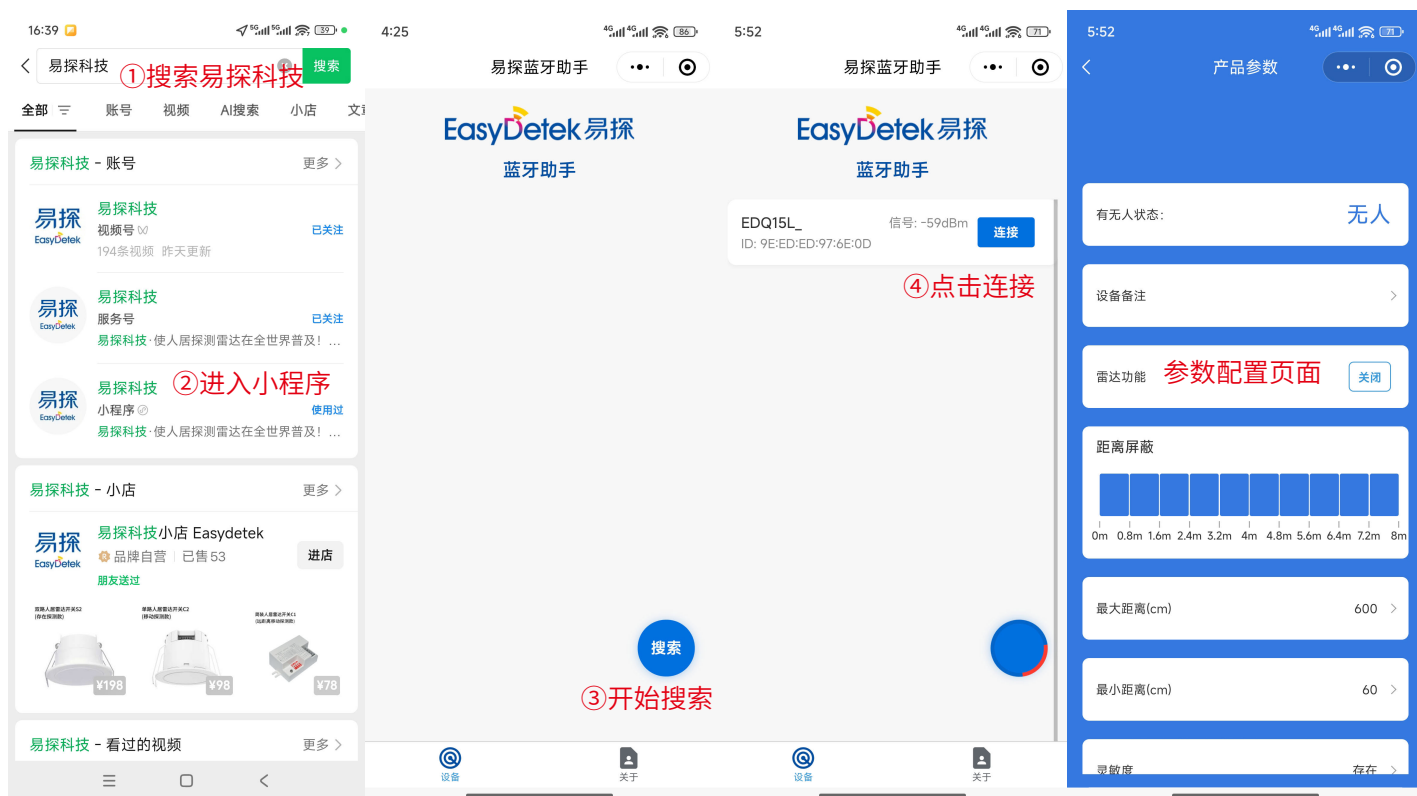Radar detects persistent target, maintaining 100% brightness

When the ambient light is insufficient, the radar detects no movement or the presence of a target and gradually dims to a waiting period of second-order brightness.

During the waiting period, the radar continuously detects no movement or target presence, and the light goes off.

## 🛜 Small program entrance

① Search for Yitan Technology: Type "Yitan Technology" in the search bar at the top of the WeChat interface and click "Search" to find related Yitan Technology accounts.

② Access the mini-program: Find the Yitan Technology mini-program on the page and click it to enter the mini-program page.

③ Click "Search" in the mini-program. A page will display the connectable Bluetooth module.

④ Click "Connect" to enter the parameter configuration page.



Connection to small program instructions：
https://easydetek.com/document/EDQ15L微信小程序使用说明V4.pdf

# 📶 Product Naming Law

| ED | Frequency Band | Product Categories | Product Subdivision | Product Number | photosensitive | Serial number |
|---|---|---|---|---|---|---|
| ED | Q | 1 | 5 | LG | Y | 01 |
| 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】：EDQ15LG-Y-01

【PCB version number】：EDQ15LG VA 20250618

【Software version number】：0X6150

# 📶 Historical revision record

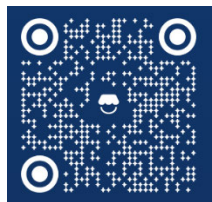| Version | Time | Description | Note |
|---|---|---|---|
| V1.0 | 2025-06-04 | First edition | - |
| V1.1 | 2025-09-18 | Updated application products, wiring instructions | - |

## 🕸 Precautions

1. When installing the radar sensor, if there is an aluminum substrate or other metal plate on the back, it should be raised to a certain height and kept at a distance of more than 5mm from the metal plane. It should not be close to or in contact with the metal plane; there should be no metal shielding or high-current cable covering in front of the radar sensor antenna, avoid facing the driving power supply, and try to stay away from the driving power supply's rectifier bridge, transformer, switch tube and other high-power devices.

2. The radar sensor has a good penetration effect on plastic and wood materials, but cannot penetrate metal or metal-coated materials. If the shell of the user's product is made of special materials such as glass, ceramic, carbon fiber, etc., please refer to the actual measured effect. If necessary, please contact Easydetek Technology's technical personnel for applicability debugging.

3. Excessive power ripple may interfere with the radar sensor and cause false alarms. It is recommended that the power supply ripple should be less than 100mV.

4. When multiple radar sensors are used in the same venue, the installation distance is too close, which may cause individual radar sensors to generate false alarms. It is recommended that the product installation distance is greater than 2m.

5.If the radar sensor is used together with a wireless communication module (NB, Bluetooth, WIFI, 2.4G module), the distance should be increased. It is recommended to keep a distance of more than 1m from high-power wireless communication devices such as routers and wireless hotspots during installation.

6. The light threshold of the radar sensor is the test value under the conditions of sunny environment, no shadow, and diffuse reflection of ambient light.

7. Easydetek Technology is committed to providing customers with high-quality and better experience radar sensors. When the product version is updated and iterated, no further notice will be given. If necessary, please contact our sales staff to obtain the latest product information.

## For More Information, Please Visit

WeChat official account

WeChat Store