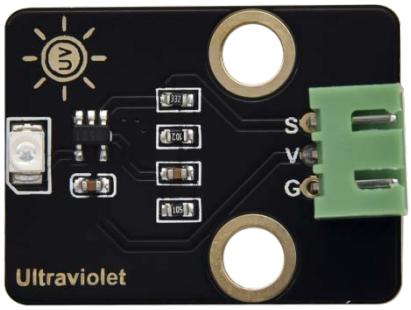
GUVA-S12SD Sunshine ultraviolet radiation sensor for Arduino



1. Introduction

GUVA-S12SD ultraviolet sensor is used to detect ultraviolet light, applied to measure ultraviolet index of intelligent wearable device, such as watches, smart phone and outdoor device with UV index detecting.

It can be also used to monitor the intensity of ultraviolet light or used as a UV flame detector when disinfecting things by ultraviolet light.

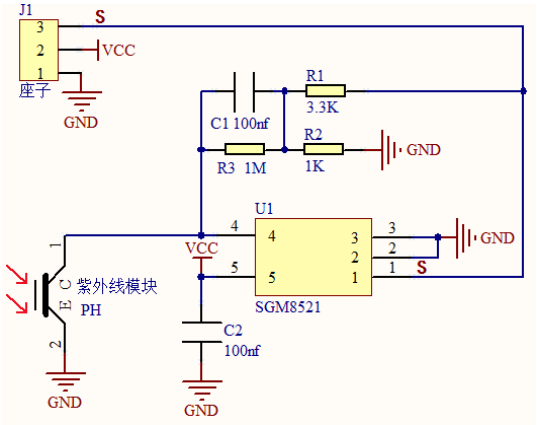
2. Parameters

- Working voltage: 5V □
- Working current: 50MA □

- Maximum power: 0.25W □
- Working temperature: -10 degrees Celsius to +50 degrees Celsius
- Supply Voltage: 5V
- Size: 31.6mmx23.7mm
- Output Signal: Analog Signal
- Detecting Range of Spectrum: 240-370nm
- Active Region：0.076mm2
- Responsivity: 0.14A/W
- Dark Current: 1nA
- Light Current: 101~125nA UVA Light,1mW/cm2

3. Schematic Diagram

The output current of the UV sensor is proportional to the light intensity, with a very high consistency. The module circuit has been set up, and we directly collect the analog signal with the ADC.

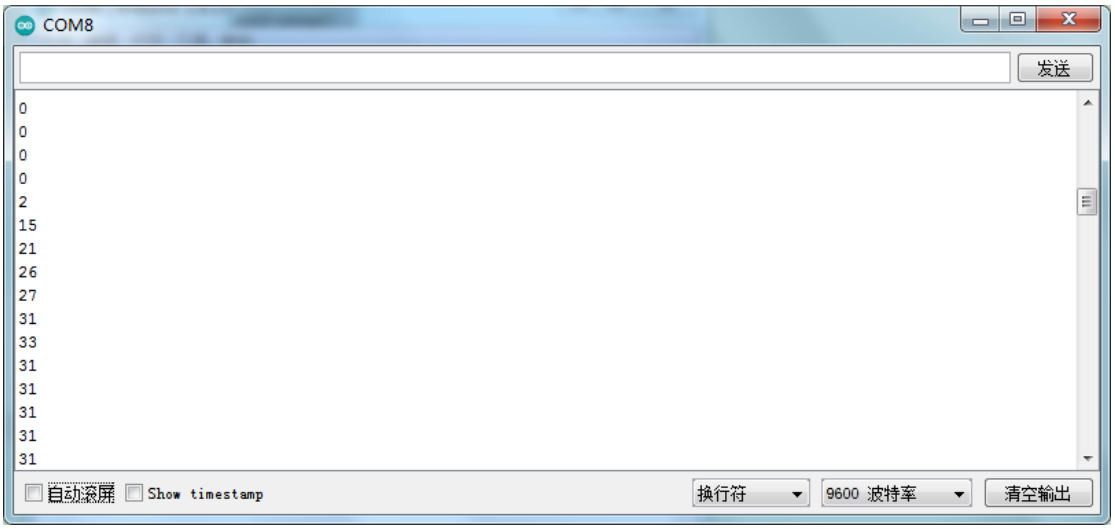


4. Test Code

```
int sensorPin =A0 ;    //define the analog port A0
int value = 0;          //set value to 0
void setup()
{
  Serial.begin(9600);//Set baud rate
 }
void loop()
{
value = analogRead(sensorPin);      //Set value to the read value of A0
Serial.println(value, DEC);       //diaplay value and enter a new line
delay(100);    //delay in 0.1S
}
```

5. Test Result：

After the line is connected, upload the program code, then open the serial monitor and set the baud rate to 9600. It will display the data as shown in the picture below.


COM8
发送
0
0
0
0
2
15
21
26
27
31
33
31
31
31
31
31
自动滚屏
Show timestamp
换行符
9600 波特率
清空输出