

# UV Module for Arduino

## GUV<sup>x1</sup>-T1<sup>x2</sup>GM-AD



### Description

UV sensors of Genicom make the photocurrent under UV light, but the level of photocurrent is very low. This small signal is not easy to be checked by normal current measure equipments and it is not to fit input signal of analog-to-digital converter (ADC). So, our modules make the voltage output. If you want, you can use this output to the other devices like a Arduino.

### Features

- Without separate supply voltage
- Analog voltage output (0~5V)
- Adjustable detection range

### Applications

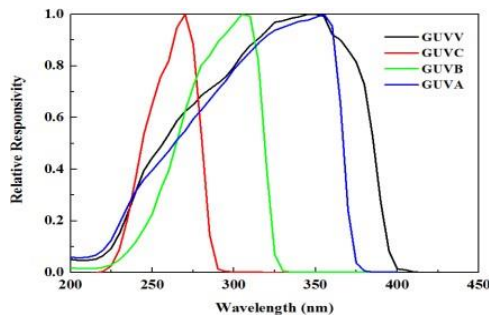
- UV Lamp power checking or monitoring
- Designed the UV measurement system with Arduino

### Characteristics (at 25 °C)

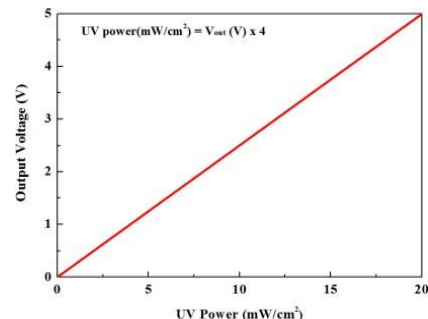
Parameter	Symbol	Min.	Typ.	Max.	Unit	Remark
Supply Voltage	$V_{cc}$	1.8		5.5	V	Use Arduino 5V output
Supply Current	$I_Q$		0.05		mA	
Spectral Detection Range <sup>1)</sup>	GUVV-T10GM-AD	230		395	nm	10% of Max.
	GUVA-T11GM-AD	220		370		
	GUVB-T11GM-AD	220		320		
	GUVC-T10GM-AD	220		280		
	GUVL-T10GM-AD	220		320		
	GVBL-T12GM-AD	320		445		
	GVGR-T10GM-AD	300		510		
Output Voltage	$V_{out}$	0		5	$V_{dc}$	
Power Detection Range	P	0		20	mW/cm <sup>2</sup>	$V_{cc} = 5V$
Response Time	T		10		ms	

1)Detection range(GUVx-UV, GVxx-Visible)

2)Serial No. of sensor.



Sensor Relative Responsivity



Output Voltage VS UV Power

### Connecting UV module to Arduino Uno R3

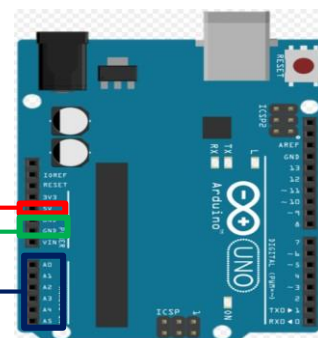
- $V_{cc}$  (Supply Voltage) : 5V (**Red wire**)
- GND : GND (**Green wire**)
- $V_{out}$  (Output Voltage) : ANALOG IN (**Navy wire**)

UV module (Si)  
ze : 28×17×9 mm<sup>3</sup>



$V_{cc}$   
GND  
 $V_{out}$   
GND

Arduino Uno R3



※ This example shows connecting with Arduino uno R3 board. But, any Arduino boards that have [5V], [GND], and [ANALOG IN] ports can be used.

### Caution

ESD can damage the device, hence please avoid ESD. Insulate the cap of TO-CAN or it can cause malfunction of the device.