

## **PIR Motion Detector Module**



### **Item No.: SB412A-01-013**

#### **General**

SB412A-01 -013 is the latest digital sensor module that based on AM412 digital sensor. It only contain a fresnel lens,PCB,and a few resistance.

#### **Features and Electrical Specification**

Compact size: 18\*10 mm

Supply Voltage: DC3.5V~12V

Quiescent Current :  $\leq 20\mu\text{A}$

Voltage Output: High level signal: 3V, Standby output is 0V or Open-Collector Output

Delay time: 2.3S-80min(customized)

Blockade time:2.3S

Trigger mode: Repeatable triggered

Operation Temperature:  $-20^{\circ}\text{C} \sim +55^{\circ}\text{C}$

Infrared sensor: dual element, low noise, high sensitivity

Detecting length: less than 5m( $25^{\circ}\text{C}$ )

Detecting Angle:  $\leq 115^{\circ}$

3. Delay time adjustment: factory setting delay time is 2-4s, can be adjusted by changing resistor(see following delay

time adjustment form)

## Parameter Setting

### 1. Input voltage and Quiescent current

According to the input voltage,the current of the Module $\leq$ 20uA:

### 2. Delay time adjustment

No	On-time Voltage (VDD)	On-time center Voltage (VDD)	Pull-down- Resistor ( $\Omega$ ) (Pull-up=1M)	Time (Td) (sec)
0	0~1/32	1/64	0K	1.8
1	1/32~2/32	3/64	51k	3.6
2	2/32~3/32	5/64	91k	5.4
3	3/32~4/32	7/64	120k	7.2
4	4/32~5/32	9/64	180k	14.4
5	5/32~6/32	11/64	220k	29
6	6/32~7/32	13/64	270k	43
7	7/32~8/32	15/64	330k	58
8	8/32~9/32	17/64	360k	115
9	9/32~10/32	19/64	430k	230
10	10/32~11/32	21/64	510k	346
11	11/32~12/32	23/64	560k	461
12	12/32~13/32	25/64	680k	922
13	13/32~14/32	27/64	750k	1843
14	14/32~15/32	29/64	910k	2765
15	15/32~16/32	31/64	1M	3686

## **Note**

Due to the high sensitivity of PIR sensor device, it is not recommended to use the module in the following or similar condition.

- A) in rapid environmental changes
- B) in strong shock or vibration
- C) in a place where there are obstructing material (eg. glass) through which IR cannot pass within detection area.
- D) exposed to direct sun light
- E) exposed to direct wind from a heater or air condition

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