

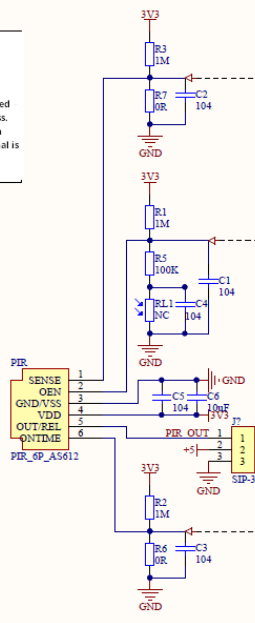


This schematic diagram is a copy of the miniature SR602 human body sensing module on the left. All components with NC are soldered components in the module.

Brief descriptions of the working principle of the infrared sensor AS612: When detecting human body, the AS612 will generate a PIR signal, which is compared with the level of the SENSE pin. If it is higher, it is valid, otherwise it is wireless. When a valid signal is generated, the OUT pin will output a high level. The high level duration is determined by the level of the ONTIME pin. If a valid PIR signal is detected again, the high level duration will be re-counted.

ONTIME 中心值电压 (V)	ONTIME(s)	电压值(V)	ONTIME引脚分压电阻推荐值 (±1%精度)	
(V _{cc} *(Step*2)+3)/128	(典型值)	(VDD=3V)	Pull-Up Resistor	Pull-Down R
3/128 或更低	2.3	0	不粘	0R
(VDD*2+3)/128	4.7	0.07	1M	24K
(VDD*4+3)/128	7	0.117	1M	39K
(VDD*6+3)/128	9.4	0.164	1M	56K
(VDD*8+3)/128	18.7	0.21	1M	75K
(VDD*10+3)/128	37	0.257	1M	91K
(VDD*12+3)/128	56	0.304	1M	110K
(VDD*14+3)/128	1min 15 sec	0.351	1M	130K
(VDD*16+3)/128	2min 30 sec	0.398	1M	150K
(VDD*18+3)/128	5min	0.445	1M	174K
(VDD*20+3)/128	7min 29 sec	0.492	1M	200K
(VDD*22+3)/128	9min59 sec	0.539	1M	220K
(VDD*24+3)/128	19min 58 sec	0.585	1M	240K
(VDD*26+3)/128	39min 56sec	0.632	1M	270K
(VDD*28+3)/128	59min25 sec	0.679	1M	294K
(VDD*30+3)/128 或更高	1hour20min	3	0R	不粘

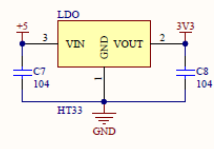
REL output high level duration corresponding to the center value of ONTIME pin voltage.



SENSE is the sensitivity adjustment pin. The sensitivity of the PIR is determined according to the level of this pin. The adjustment range is 0-1/4 of VDD.

The lower the level of this pin, the higher the sensitivity, and vice versa. Sensitivity can also be understood as the effective distance that the PIR can detect. The more sensitive it is, the farther the distance it can detect. R7 and R3 divide the voltage to determine the potential of the SENSE pin. When 0 Ohms is selected, the SENSE pin level is zero and the sensitivity is the highest.

OEN is an enable pin. The voltage of this pin is between 0.20V and VDD. PIR works. Therefore, a photoresistor can be connected in series at R5, so that it can achieve the effect of not working during the day and working at night. R5 can exist as a light sensitivity fine-tuning resistor, and the corresponding resistance value can be selected according to actual conditions.



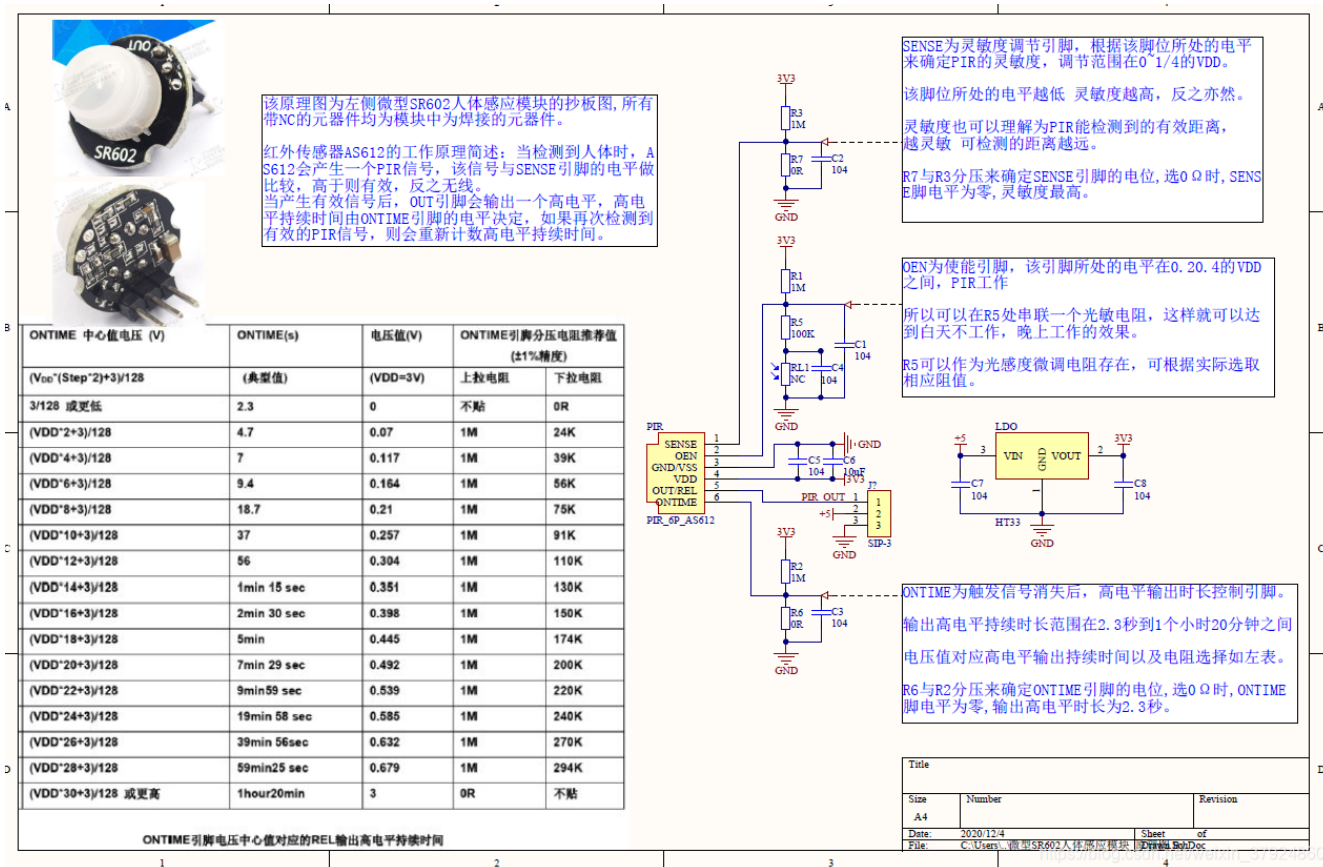
ONTIME is the high-level output duration control pin after the trigger signal disappears.

The output high level duration ranges from 2.3 seconds to 1 hour and 20 minutes.

The voltage value corresponding to the high-level output duration and resistor selection are shown in the table on the left.

R6 and R2 divide the voltage to determine the potential of the ONTIME pin. When 0Ω is selected, the ONTIME pin level is zero, and the output high level is 2.3 seconds.

Title		
Size	Number	Revision
A4		
Date:	2020/12/4	Sheet of
File:	C:\Users\... 微型SR602人体感应模块	Sheet of



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R6 and R2 divide the voltage to determine the potential of the ONTIME pin. When 0R is selected, the ONTIME pin level is zero, and the output high level is 2.3 seconds.

SENSE is the sensitivity adjustment pin. The sensitivity of the PIR is determined according to the level of this pin. The adjustment range is 0~1/4 of VDD.

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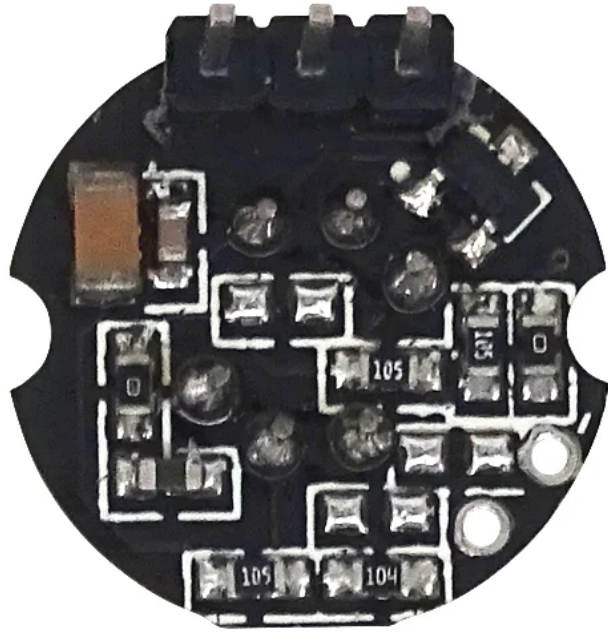
R7 and R3 divide the voltage to determine the potential of the SENSE pin. When 0R is selected, the SENSE pin level is zero and the sensitivity is the highest.

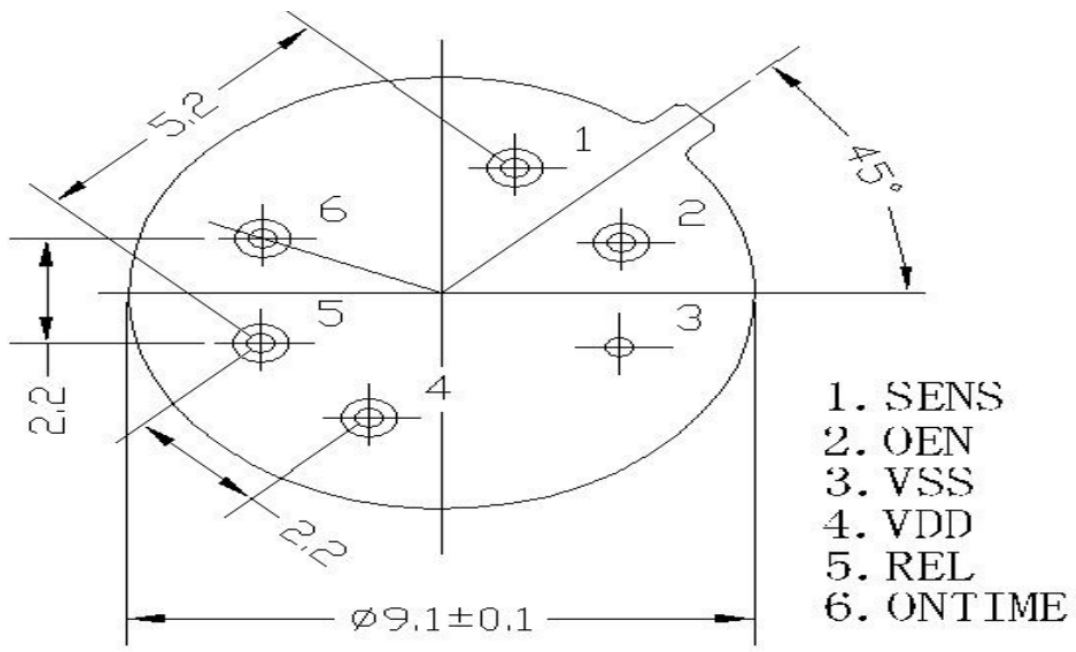
OEN is an enable pin. The voltage of this pin is between 0.20.4 and VDD. PIR works.

Therefore, a photoresistor can be connected in series at R5, so that it can achieve the effect of not working during the day and working at night.

R5 can exist as a light sensitivity fine-tuning resistor, and the corresponding resistance value can be selected according to actual conditions.

ONTIME center value (V) ONTIMNE pin divided resistor 1% accuracy Vdd *(Step*2) + 3) /128 Pull-Down Resistor	ON TIME (s) (Typical Value)	Voltage value(V) Vdd = 3V	Recommended value of Pull-up Resistor	
			(R2)	(R6)
3/128 or lower	2.3	0	Not Posted	0R
(Vdd*2+3)/128	4.7	0.07	1M	24K
(Vdd*4+3)/128	7	0.117	1M	39K
(Vdd*6+3)/128	9.4	0.164	1M	56K
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(Vdd*26+3)/128	39min 56sec	0.632	1M	270K
(Vdd*28+3)/128	59min 56sec	0.679	1M	294K
(Vdd*30+3)/128 or higher	1 hr 20 min	3	0R	Not Posted





PIR Dimension

