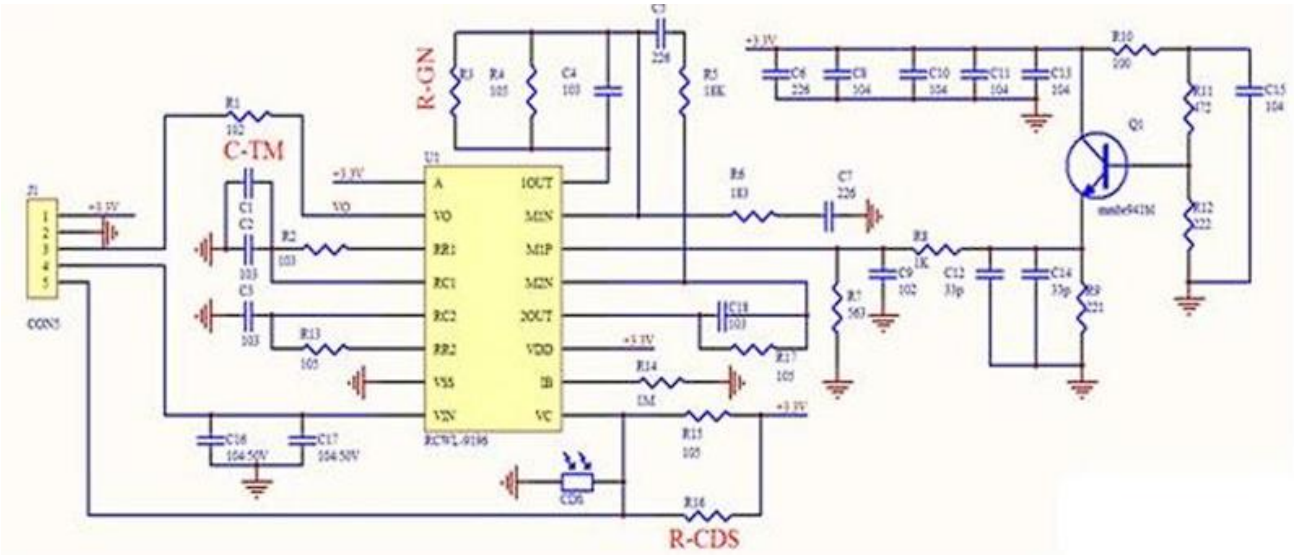


PRODUCT INFORMATION

LET YOU HAVE A CLEARER UNDETSTANDING OF THE PRODUCT INFORMATION

INTRODUCTION

- RCWL-0516 is a microwave induction module which uses Doppler radar technology to detect object movement. The module has the characteristics of high sensitivity, long induction distance, strong reliability, large induction angle and wide supply voltage range. It is widely used in various human body induction lighting and anti-theft alarm occasions.

CHARACTERISTICS

- Using special signal processing control chip RCWL-9196
- Wide operating voltage range: 4.0-28.0V
- Compared with traditional infrared induction PIR, it has penetration detection capability.
- Blockade time, distance adjustable
- Output 3.3V power supply

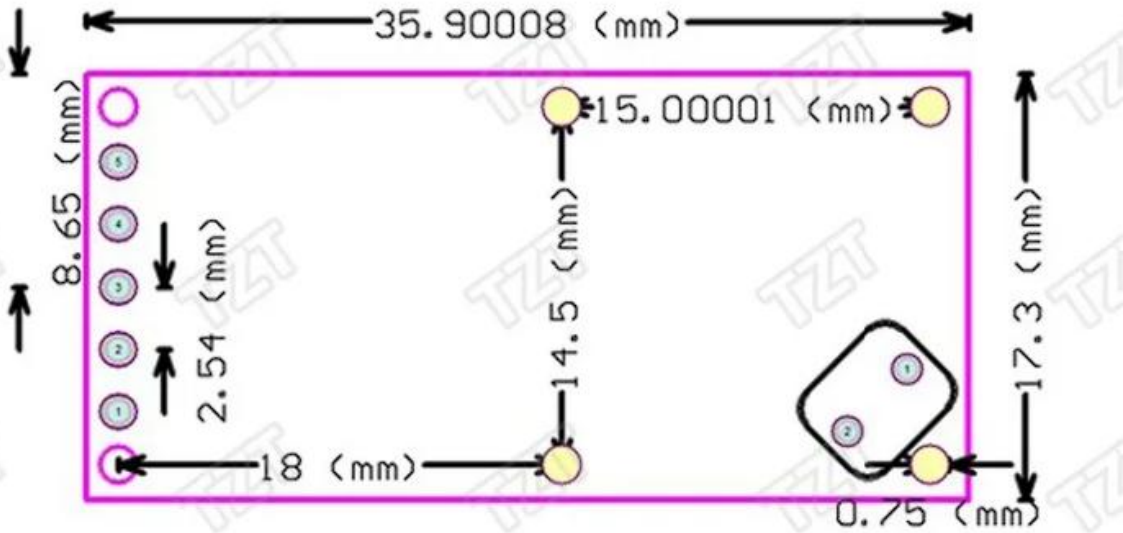
Number	Name	Define
1	3V3	3V3 power supply output
2	GND	Ground
3	OUT	Control output, detected high level of moving object output
4	VIN	Input voltage,4-28V
5	CDS	Enabling control chip, less than 0.7V, OUT has been output low level

Name	Parameter Values			Unit
	Min	Typ	Max	
Working voltage	4		28	V
Working current		2.8	3	mA
Detection distance	5	7	9	M
Transmitting power		20	30	mW
Output voltage	3.2	3.3	3.4	V
Output Voltage Driving Capability		100		mA
Trigger mode		Repetitive trigger		
Output Control Low Level		0		V
Output Control High Level		3.3		V
Working temperature	-20		80	℃

FUNCTION DESCRIPTION OF PIN

- 3V3:3.3 Output Voltage, Driving Current 100mA
- GND: Modular Ground End
- OUT: Control signal output, when there is movement of objects in the detection area, OUT output high level; C-TM can set the repeated trigger time, if there is trigger signal (moving objects) in the repeated trigger time, eat continuously output high level; if there is no moving objects in the monitoring area, output low level.
- VIN: Modular power input, 4-28V
- CDS: trigger control signal; less than 0.7V, OUT has been output low level; greater than 0.7V, normal work detection. The CDS pin is connected with a photoresistor.

CIRCUIT AND WRITING DIAGRAMS



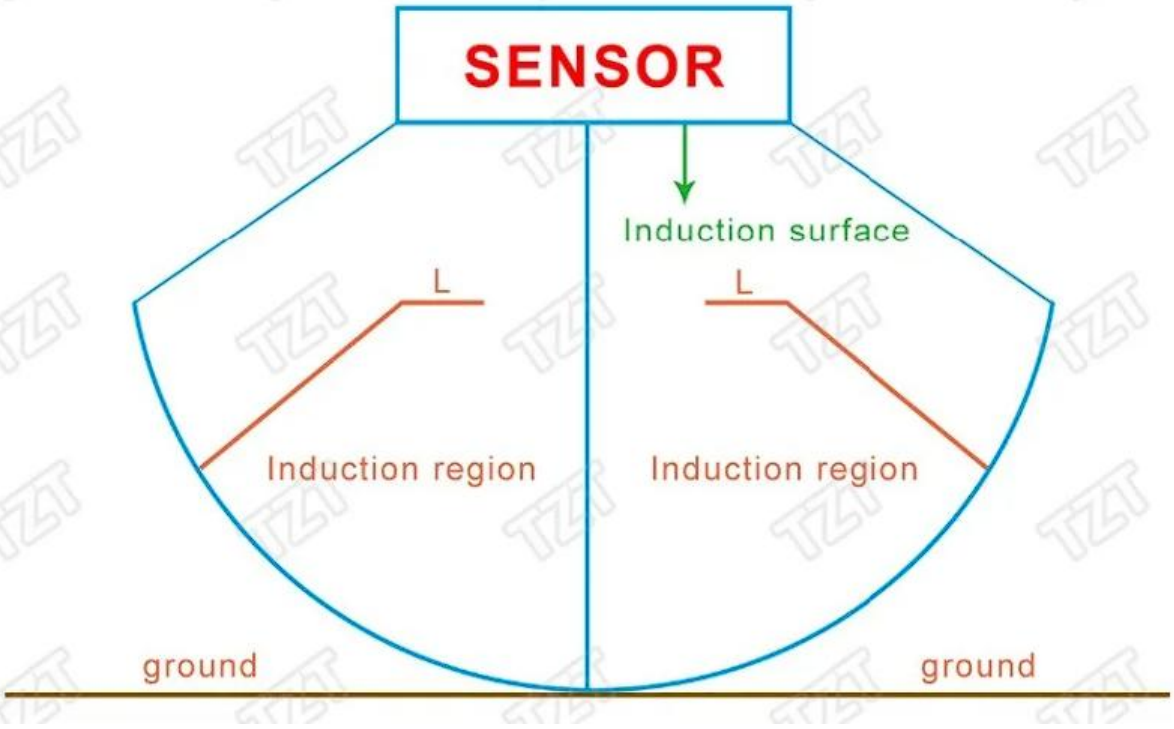
ADJUSTMENT INSTRUCTION

- C-TM: Adjust the repeated trigger time, the default trigger time is 2s. Increasing capacitance will increase the repetitive triggering time. Actual calculation of repetitive triggering time can be done as follows: paste capacitance at C-TM, test the 3-foot frequency f of 9196, repetitive triggering time T=(1/f)*32768.

- R-GM: Detection distance adjustment, resistance connection, detection distance decreases. Not connected, the detection distance is about 7M, connected with 1M resistance, and the detection distance is about 5M. It can be adjusted according to the actual situation.

- R-CDS: Internal VCC is connected to CDS foot (9 feet of 9196) by R-CDS and internal 1M resistance in parallel, and guang'min is connected to CSD.

APPLICATION NOTES



- No metal shielding shall be allowed in front of the induction surface.
- Reserve more than 1CM of space in front and rear of sensory front
- The module is as parallel as possible to the plane of the loader.
- Effective application in certain detection area
- The components of the module are positive and negative. Negative induction has a slightly worse effect.
- Microwave modules can not be widely used in the same area, otherwise they will interfere with each other, and the spacing between individual units is more than 1M.