RCWL-0516

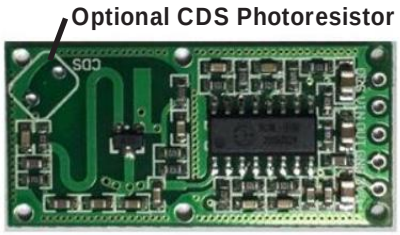
Doppler RADAR Motion Sensor

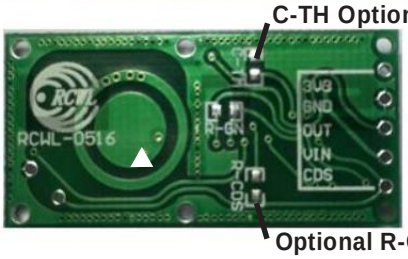
Features

Doppler RADAR module using the RCWL-9196 chip that supports repeat trigger, and 360 degree detection area with no blind spot; Best sensitivity is component side.

Supports: Output OnOff

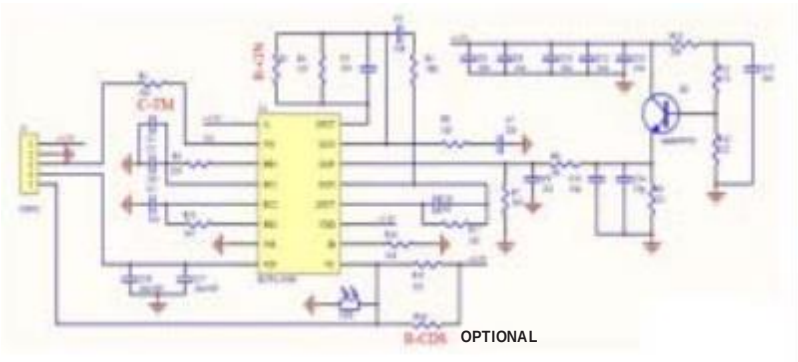
Adjustable repeat trigger time and detecting distance by add the SMD components to the corresponding Pads





Specifications

Power: 4-28VDC @ <3mA
Detection Range: ~5-9m
Frequency: ~ 3.2GHz
Transmitting Power: 20mW (typical); 30mW (max)
Output Level: ~3.4V High <0.7 Low
Output Drive: ~100mA
Output Timing: ~2sec Retrigger with motion
Operating Temperature: -20~80 celsius
Storage Temperature: -40~100 celsius
Terminals: 0.1 Pitch solder holes
L: 1-3/8" **W:** 13/16" **H:** 3/16" **WT:** .005



Pin Function:

3V3 **3.3VDC Output**
GND **Ground (Common)**
OUT **Module Output (Hi when triggered)**
VIN **4-28VDC Input Power**
CDS **External Photoresistor** (can pulled low to disable triggering)

Optional Adjustments:

C- Trigger (Output Pulse) cycle time: The default (unpopulated) time is 2s.
Adding a SMD capacitor will extend the repeat trigger time. The IC emits a frequency (f), and the tigger time in seconds is given by (1/f) * 32678

R-GN Detection Range: The default detection range is 7m, adding a 1M resistor reduces it to 5m

CDS Mounting location for an optional on-board Photoresistor for Disabling output trigger in daylight

R-CDS Light sensitivity adjustment. Part of the voltage divider for the optional photoresistor.
Lower R-CDS, the brighter it has to be to disable the trigger. (47K–100K)