

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 trigger 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)

