

# 34685-MP

## 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

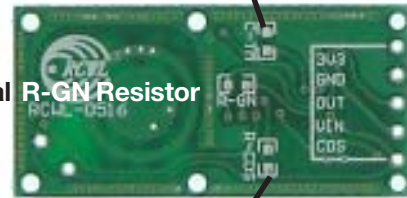
### Pin Function:

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

Optional CDS Photoresistor

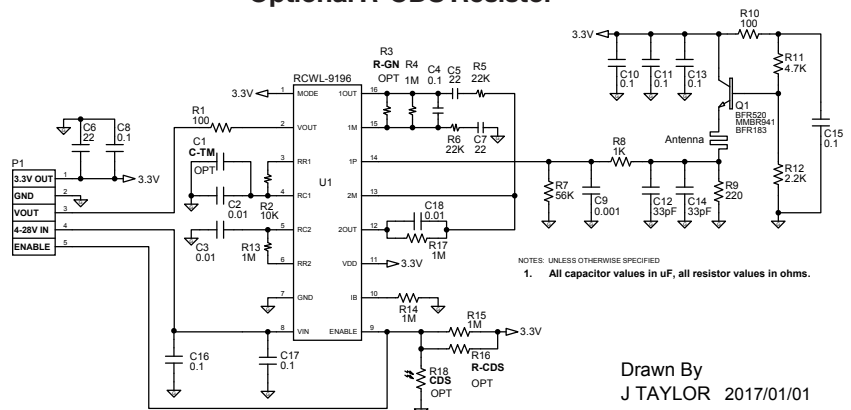


C-TM Optional Cap



Optional R-GN Resistor

Optional R-CDS Resistor



Drawn By  
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### Optional Adjustments:

**C-TM** 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)

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