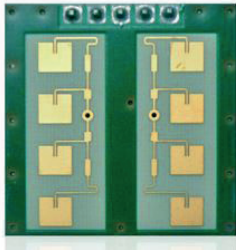


DATA SHEET



Radar transceiver

Description



Characteristic features

- radar-based motion detector working in the 24GHz - ISM - Band
- FMCW/FSK capable; therefore measurement of distance as well as recognition of stationary objects is possible
- advanced VCO-oscillator with low current consumption
- split transmit and receive path for maximum gain
- dual channel operation for direction of motion identification

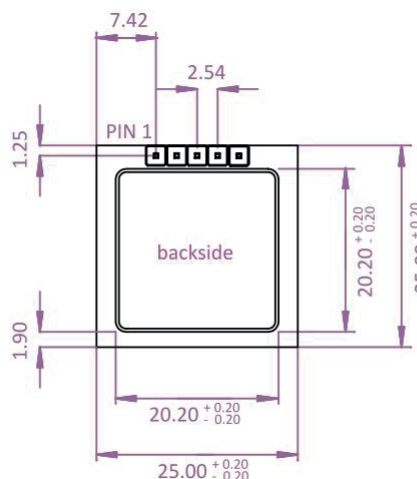
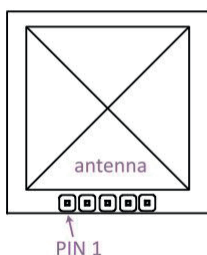
Applications

- Door Openers
- Security Applications
- Industrial Applications

Features

The RSM4650 radar sensor is a version with vco oscillator and therefore the perfect choice for low cost applications where the detection of movement direction is necessary as well as the detection of range.

Dimensions



Performance

- Movement
- Velocity
- Direction
- Presence
- Distance

Technical data

Radar transceiver	
Operating temperature	-20...+60 °C
Supply current	30 mA
Supply voltage	5 V (min. 4,75, max. 5,25 V)
Side-lobe suppression	horizontal 13 dB vertical 13 dB
full beam width @ -3 dB	horizontal 80 ° vertical 32 °
IF-amplifier	bandwidth: no IF-amplifier included
IF-output	offset -300...300 mV
output power (EIRP)	16 dBm
temperature drift (frequency)	-1 MHz/ °C
Tuning slope	50 MHz/V
Varactor tuning voltage	0,5-10 V
Transmit frequencies	24.000-24.250 GHz
RoHs	RoHs 2002/95/EG compliant
Articleno.	0392 0002

PIN assignment

PIN	Description	IN/OUT	Comment
1	V_{TUNE}	input	varactor tuning voltage
2	V_{CC}	input	supply voltage (5 V)
3	GND	input	analog ground
4	IF2	output	Signal Q(uadarture)
5	IF1	output	Signal I(nphase)

