Lexiwave Technology (Hong Kong) Ltd.
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LWRD10GBM Radar Module

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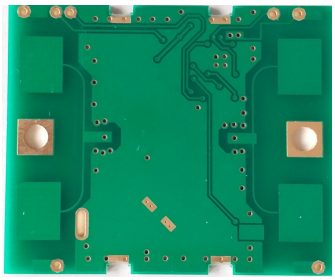


1.0 Introduction

LWRD10GBM is miniature transceiver radar module using X-Band microwave frequency. Its unique frequency-stabilized radar Doppler circuit make it ideal for stable and precise motion detection applications over a wide temperature range. Its advanced antenna design offers a well-defined and precise detection beamig angles. It can operate in either CW or pulse mode with low duty cycle pulse mode to save power consumption.

This module is ideally suitable for intruder or occupancy detection with minimum level of false alarm. It can also be used for auto-door opening in both indoor or outdoor environments and vehicle or object speed measurement.

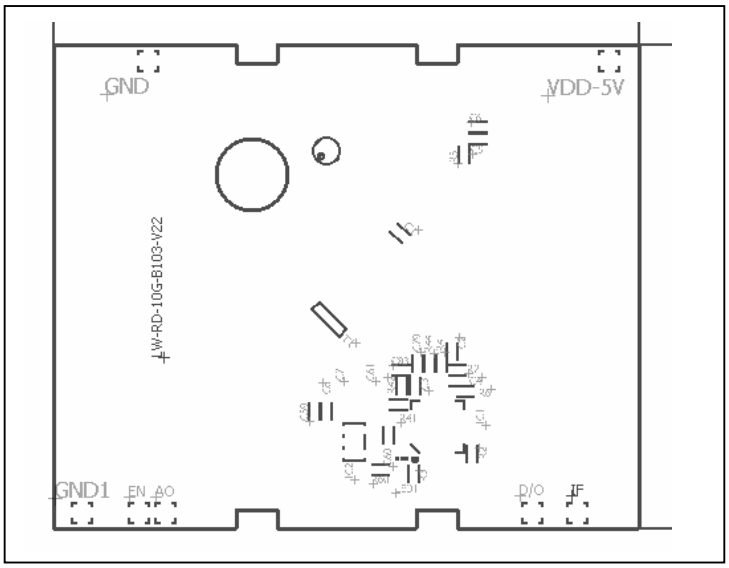
2.0 Features

- Low cost
- CW or pulse operation
- Low current consumption
- 3M detection range
- Small size
- Highly stable
- High sensitivity
- Precise detection coverage
- Integrated IF amplification and detection circuitries
- Minimum number of external components
- IF, analog and digital outputs

3.0 Applications

- Motion detector
- Occupancy detector
- Speed measurement
- Lighting control
- Auto-door opener

4.0 Pin Description



Pin Name	Description
EN	Radar transceiver Enable
IF	IF output
AO	Analog output
D/O	Triggered Digital output
VDD	Power Supply (5V)
GND	Ground

5.0 Electrical Characteristics

5.1 General

Parameter	Value	Units
Frequency	10.525	GHz
Operating voltage (Vcc)	+5 (+/- 0.25)	V
Dimensions	37 x 45 x 7	mm
Operating temperature	-10 to +55	℃

5.2 Electrical Characteristics

Parameter	Value	Units
Frequency accuracy	3	MHz
TX output power	13	dBm EIRP
Operating current	40	mA
Harmonic emission	< -7.3	dBm
Sensitivity (10dB S/N)	-85	dBm
Antenna gain	6	dBi
Detection Digital output (Logic High)	Vcc	V
Detection Digital output (Logic Low)	0	V

6. IMPORTANT NOTICE

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