

8

CM501 Microwave Motion Sensor Module

PRODUCT

DESCRIPTION

10.525GHz Microwave Motion Sensor Module

CM501 is X-Band Doppler motion sensor to detect motion. It consists of DRO (Dielectric Resonator Oscillator), passive diode and patch antennas and provides most reliablesolution in motion detection.

PICTURE

FEATURES

» Flat profile

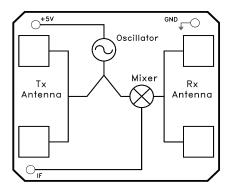
» Low current consumption

Low harmonics emission

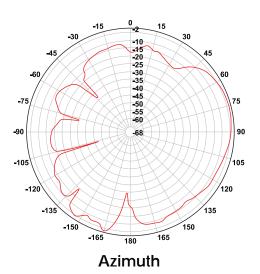
» CW or Pulse operation

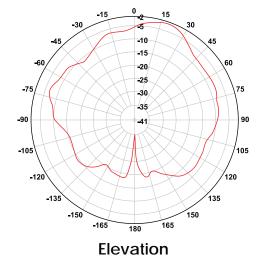
- APPLICATIONS
- Energy Saving
- Microwave-PIR Motion Detector
- Lighting Control
- Security System

BLOCK DIAGRAM



ANTENNA BEAM PATTERN





CONFIDENTIAL AND PROPRIETARY

The information contained in this document shall remain the sole and exclusive property of Blusent and shall not be disclosed by the recipient to third parties without prior consent of Blusent in writing.



CM501 Microwave Motion Sensor Module

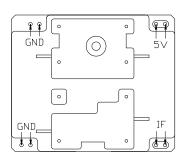
ELECTRICAL SPECIFICATIONS

PARAMETER	MIN	TYP	MAX	UNITS
Frequency	10.520	10.525	10.530	GHz
Radiated Power (EIRP)	12	15	20	dBm
Supply Voltage	4.8	5	5.2	VDC
Current Consumption		30	40	mA
Noise			10	μVrms
Received Signal Strength		100		μVp-р
3dB Antenna Beam width - Azimuth		80		o
3dB Antenna Beam width - Elevation		40		o
Pulse Repetition Frequency		2		KHz
Pulse Width	10			μSec
Operating Temperature	-15		+55	°C
Weight		10		gm

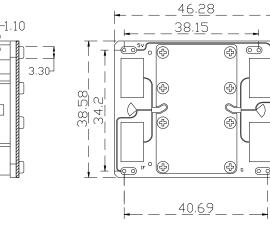
Warning : The specifications can be changed without any notice.

DIMENSION

Torerance : ± 0.2

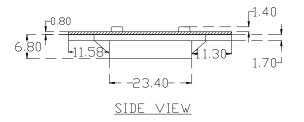


<u>BOTTOM VIEW</u>



<u>SIDE VIEW</u>

TOP VIEW



CONFIDENTIAL AND PROPRIETARY

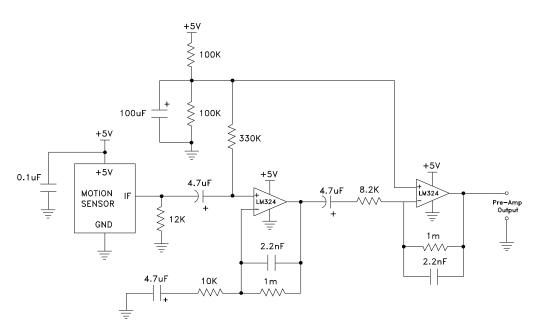
The information contained in this document shall remain the sole and exclusive property of Blusent and shall not be disclosed by the recipient to third parties without prior consent of Blusent in writing.



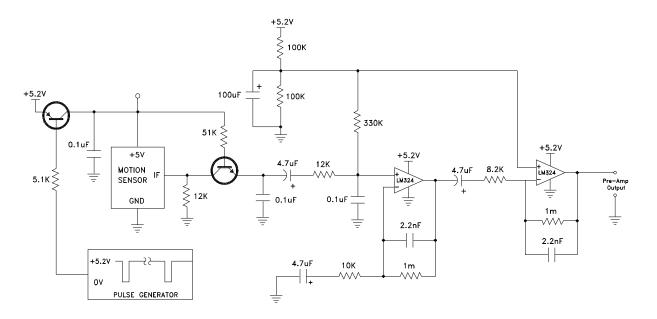
CM501 Microwave Motion Sensor Module

APPLICATION CIRCUIT EXAMPLE

Amplifier Circuit (CW operation)



Amplifier Circuit (Pulse operation, PRF=2 KHz, Duty Cycle=4%)



Warning : To avoid a fatal damage, it should be carefully handled and installed under ESD protection condition.

CONFIDENTIAL AND PROPRIETARY

The information contained in this document shall remain the sole and exclusive property of Blusent and shall not be disclosed by the recipient to third parties without prior consent of Blusent in writing.