

CM501 Microwave Motion Sensor Module

PRODUCT 10.525GHz Microwave Motion Sensor Module

DESCRIPTION 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 reliable resolution in motion detection.

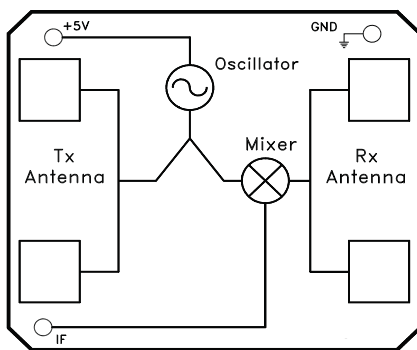
FEATURES

- » Low current consumption
- » CW or Pulse operation
- » Flat profile
- » Low harmonics emission

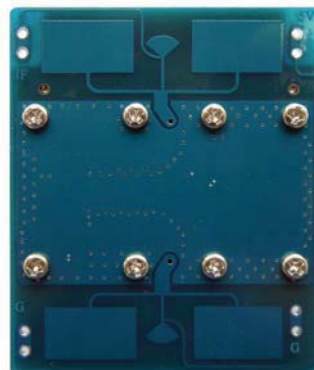
APPLICATIONS

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

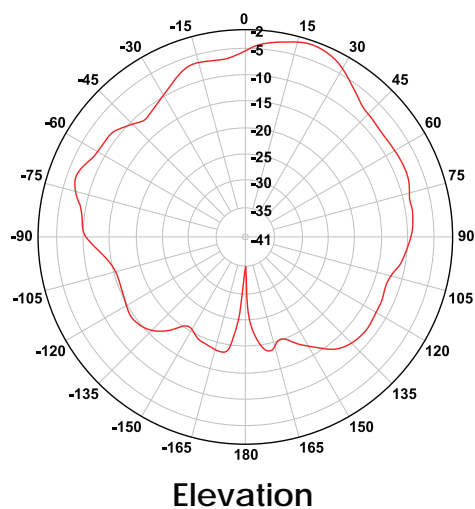
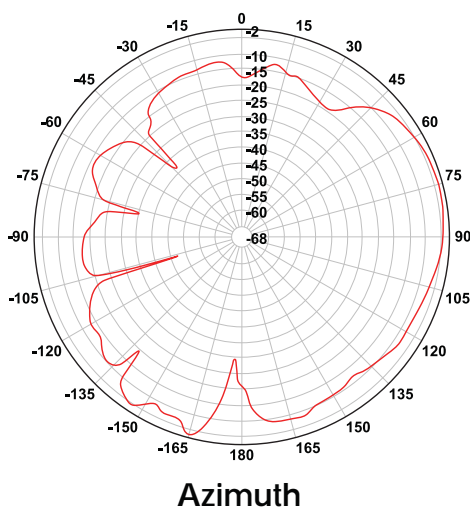
BLOCK DIAGRAM



PICTURE



ANTENNA BEAM PATTERN



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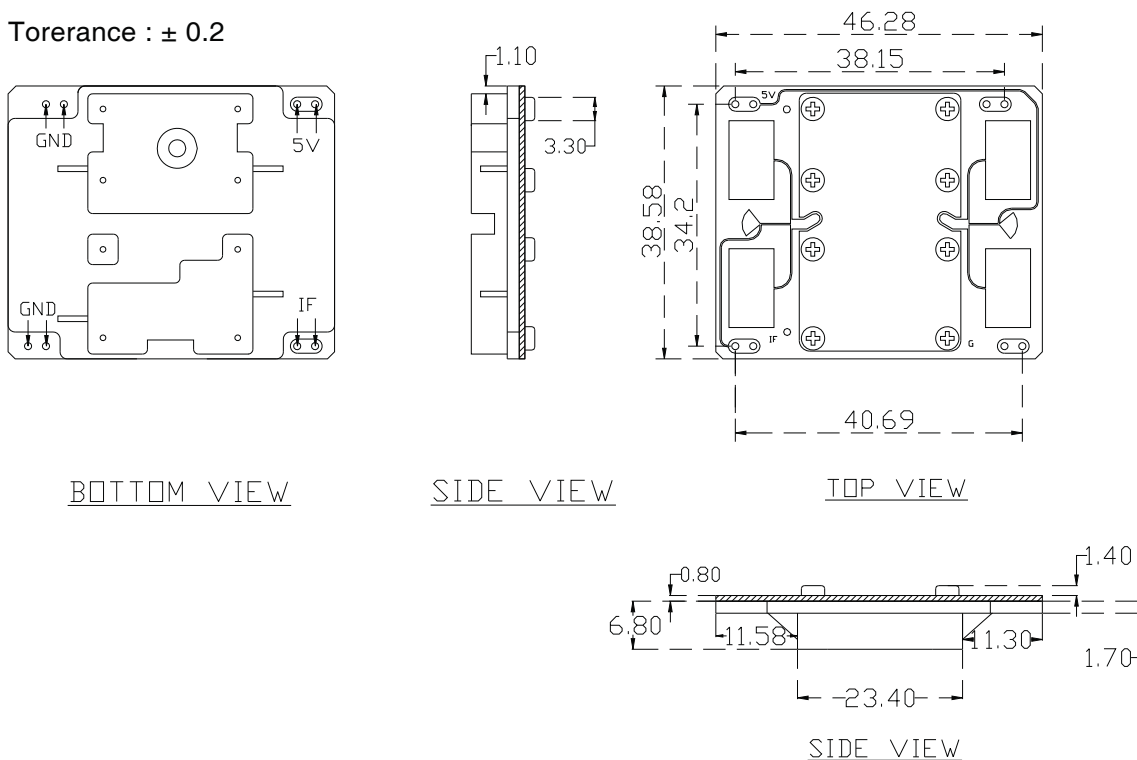
ELECTRICAL SPECIFICATIONS

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	μ Vrms
Received Signal Strength		100		μ Vp-p
3dB Antenna Beam width - Azimuth		80		°
3dB Antenna Beam width - Elevation		40		°
Pulse Repetition Frequency		2		KHz
Pulse Width	10			μ Sec
Operating Temperature	-15		+55	°C
Weight		10		gm

Warning : The specifications can be changed without any notice.

DIMENSION

Tolerance : ± 0.2



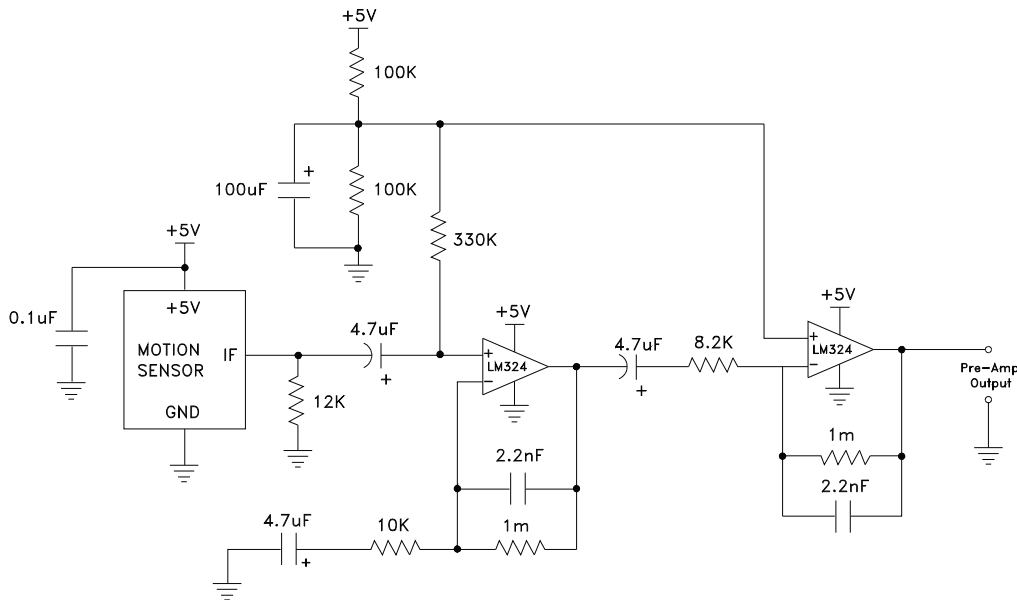
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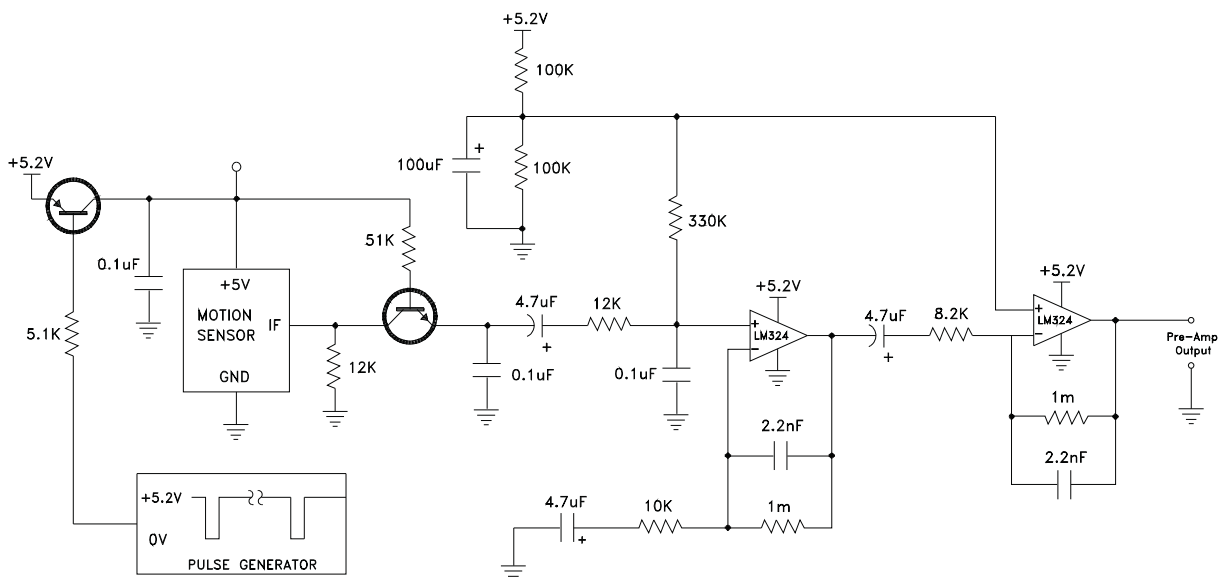
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APPLICATION CIRCUIT EXAMPLE

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.

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