

X-Band Motion Sensor

Model : TMS100

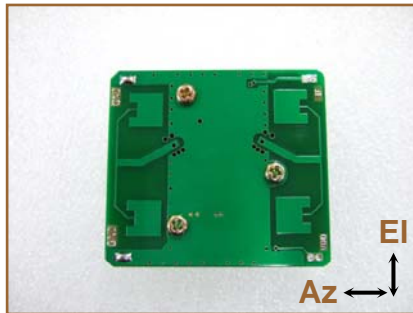
[Description]

TMS100 is a X-band Doppler sensor transceiver module for motion detection. It consists of DR(dielectric resonator) oscillator, passive diode mixer and patch antennas to provide the most reliable solution in motion detection.

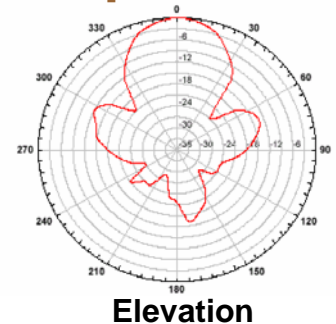
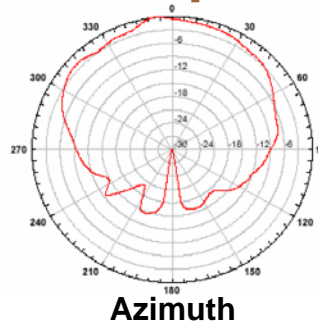
[Applications]

- Intrusion Alarms
- Automatic Door openers
- Obstruction Warning Systems
- Non-Contact Measurement
- Microwave-PIR motion detector
- Speed Measurement
- Light dimming control

[Picture]



[Antenna Beam Pattern]



[Electrical Characteristics]

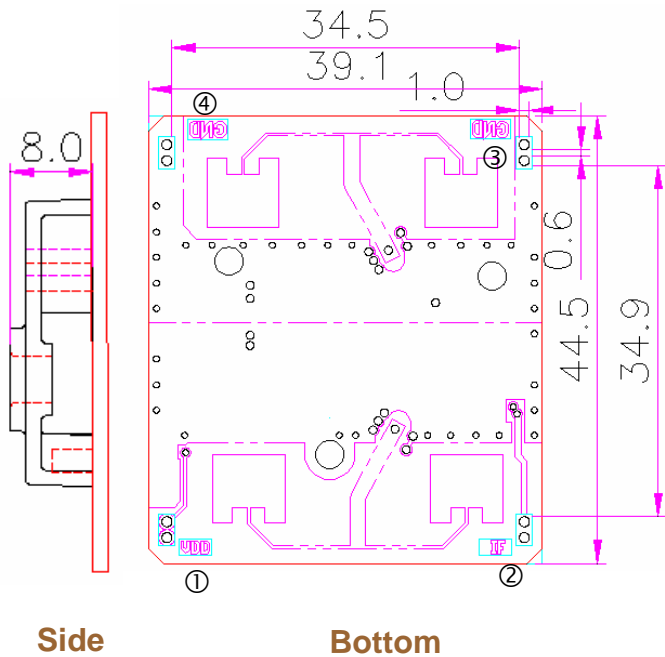
Parameters		Min.	Typ.	Max.	Unit	Condition
CW	Frequency	10,525 ± 12.5			MHz	Over Temp.
	Output Power (EIRP)		15.5		dBm	
	Power Supply	4.75	5	5.25	V	
	Current Consumption	30		60	mA	CW
	Settling time			6	μS	
	Noise			10	μVrms	3~80 Hz
	Received Signal			20	mVp-p	max
	3dB Antenna Beam Width - Azimuth		81		°	
	3dB Antenna Beam Width - Elevation		36		°	
	Operating temp.	-20		+55	°C	
	Storage temp.	-30		+70		
Size	45 x 40 x 10			mm ³		
Pulse Operation	Pulse Width	5			μS	
	Duty Cycle	1			%	
	Average Current		2		mA	@5% duty

Note : Product specification are subject to change without notice

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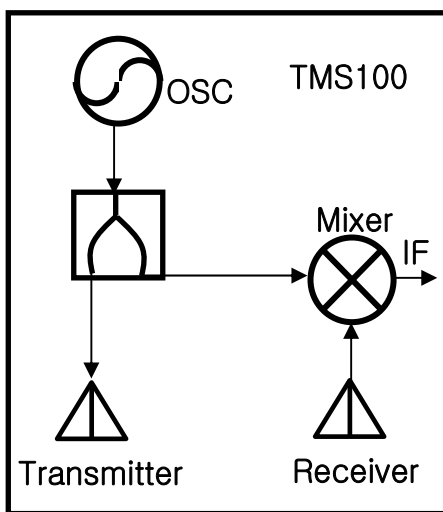
[Dimension]



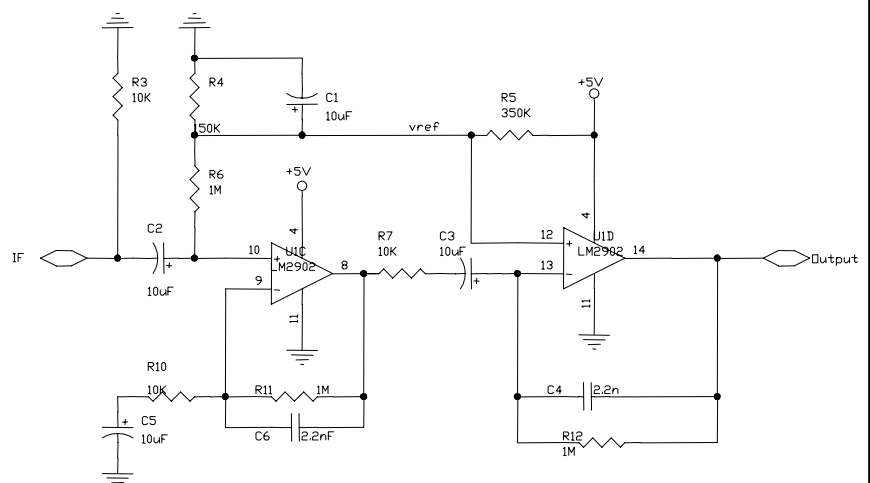
[I/O Description]

#	Pin Name	Description
1	VDD	Bias supply, +5V
2	IF	Output
3	GND	ground
4	GND	ground

[Functional Block]



[Sample Circuit]



Note : TMS100 is an ESD sensitive device, so careful handling in installation is needed. Unless it can cause a degradation or a malfunction in performance.