

## X-Band Motion Sensor

## Model : TMS400

### [ Description ]

TMS400 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.

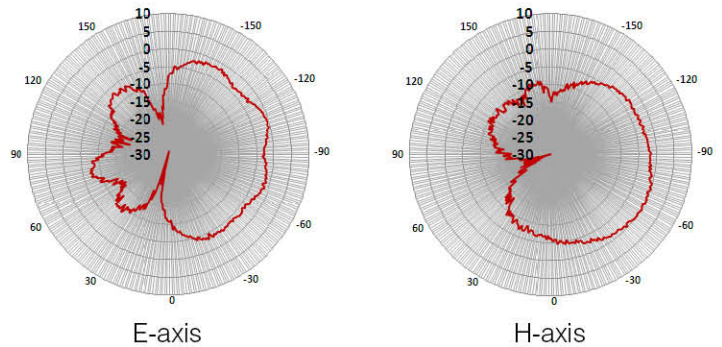
### [ Applications ]

- 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 ]

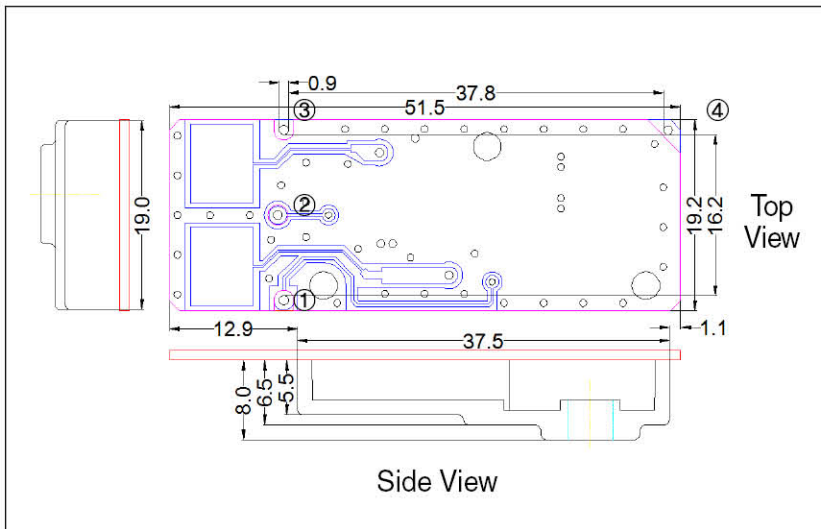
Parameters		Min.	Typ.	Max.	Unit	Condition
CW	Frequency	10,525±12.5			MHz	Over Temp.
	Output Power (EIRP)		10		dBm	
	Power Supply	4.75	5	5.25	V	
	Current Consumption	30		60	mA	CW
	Settling time			6	µS	
	Noise			10	µVrms	3~80Hz
	Received Signal			20	mVp-p	max
	3dB Antenna Beam Width - E-axis		74		°	
	3dB Antenna Beam Width - H-axis		85		°	
	Operating temp.	-20		+55	°C	
	Storage temp.	-30		+70	°C	
Size	51.5 x 19.2 x 9.0			mm <sup>2</sup>		
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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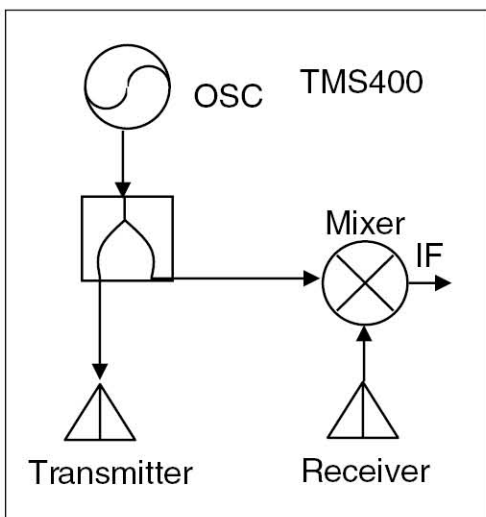
### [ Dimension ]



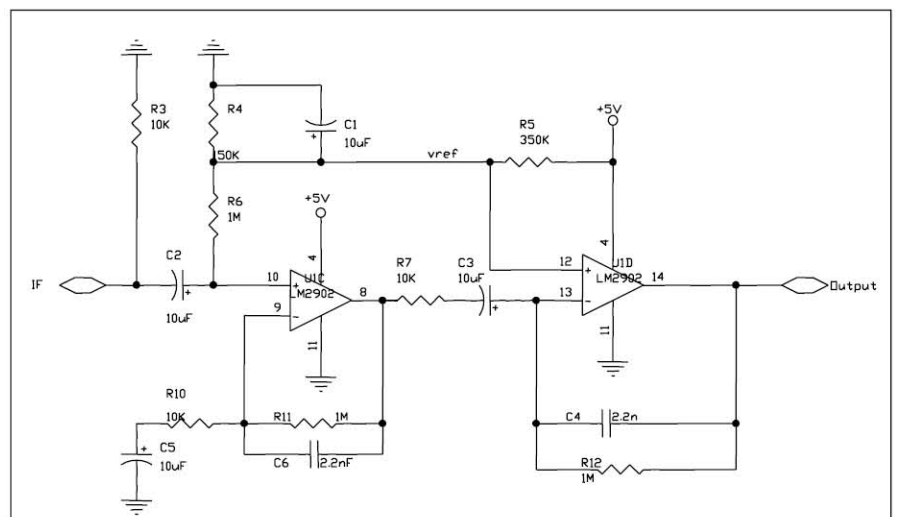
### [ I/O Description ]

No	Pin Name	Description
1	VDD	Power supply, +5V
2	IF	Output
3	GND	Ground
4	GND	Ground

### [ Functional Block ]



### [ Sample Circuit ]



Note : TMS400 is an ESD sensitive device, so careful handling in installation is needed. Unless it can cause a degradation or a malfunction in performance.