

X-Band Motion Sensor

Model : TMS300

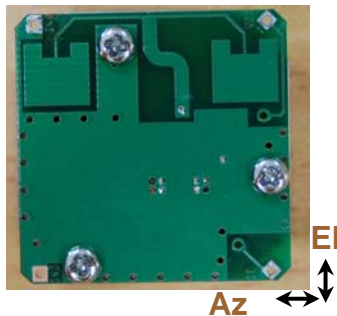
[Description]

TMS300 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.

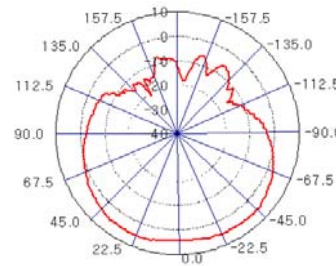
[Applications]

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

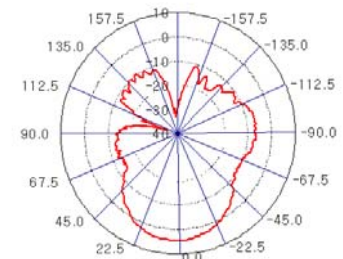
[Picture]



[Antenna Beam Pattern]



Azimuth



Elevation

[Electrical Characteristics]

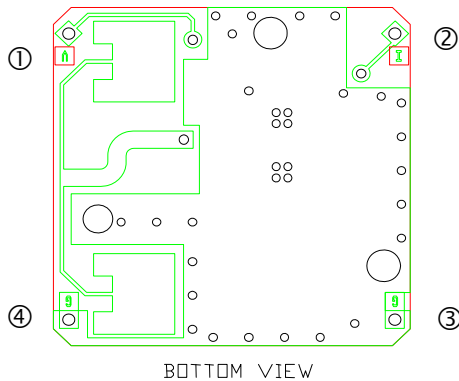
Parameters		Min.	Typ.	Max.	Unit	Condition
CW	Frequency	10,525 ± 25			MHz	Over Temp.
	Output Power (EIRP)			25	mW	
	Antenna Gain			6	dBi	@10.525GHz
	Power Supply	4.75	5	5.25	V	
	Current Consumption	30		60	mA	CW
	Settling time			6	μS	
	Noise			10	μVrms	3~80 Hz
	Received Signal			20	mVp-p	max
	3dB Antenna Beam Width – Azimuth		130		°	
	3dB Antenna Beam Width – Elevation		46		°	
	Operating temp.	-20		+55	°C	
	Storage temp.	-30		+70		
	Size	30 x 30			mm ²	

Note : Product specification are subject to change without notice

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[Dimension]

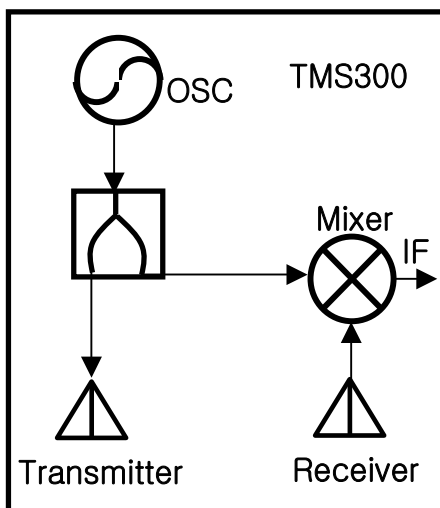


- Hole: $\phi 1.0$
- Hole Distance
Left-Right=27.4mm
Up-down=25.36mm

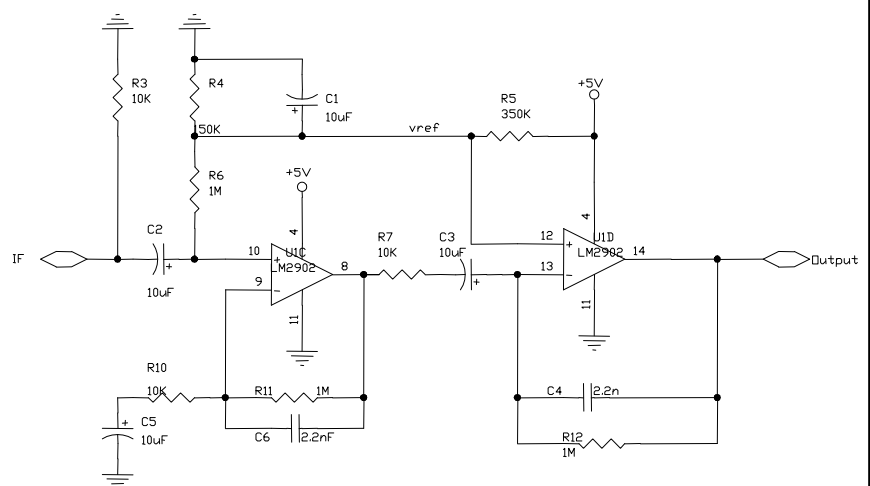
[I/O Description]

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

[Functional Block]



[Sample Circuit]



Note : TMS300 is an ESD sensitive device, so careful handling in installation is needed. Unless it can cause a degradation or a malfunction in performance.