

1. SMRS-24G

Microwave Radar Sensor Module(SMRS)

2. Specification

2.1 General Specification

- 1) Transmit Frequency range : 24.05GHz~24.25 GHz
- 2) Operating Frequency : 24.125 GHz typ.
- 3) Supply Voltage : 4.75V~ 5.25V

2.2 Ambient Conditions

- 1) Operating temperature : -20 ~ +60 °C
- 2) Humidity(operation) : 0~80% RH

2.3 Absolute Maximum Ratings :

Parameter	Symbol	Rating	Unit
supply voltage	Vcc	5.5	V
operating temperature(out of spec)	Top	-40 / +85	°C
storage temperature	Tstg	+90	°C

2.4 Electrical Characteristics

Parameter	Symbol	Specification				비고
		Min.	Typ.	Max	Unit	
Frequency		24.05	24.125	24.25	GHz	
Temperature Drift	Δf		-1		MHz/°C	
Output Power(EIRP)	Pout		16	20	dBm	
Antenna HPBW	Horizontal		80		deg	
	Vertical		32		deg	
Side lobe level	Vertical		13		deg	
IF Output*			2.35		V	
Supply Voltage		4.75	5	5.25	V	
Supply Current			30	40	mA	
Operating Temp.		-20		+60	°C	
Dimensions		~25 x 25 x 7			mm	

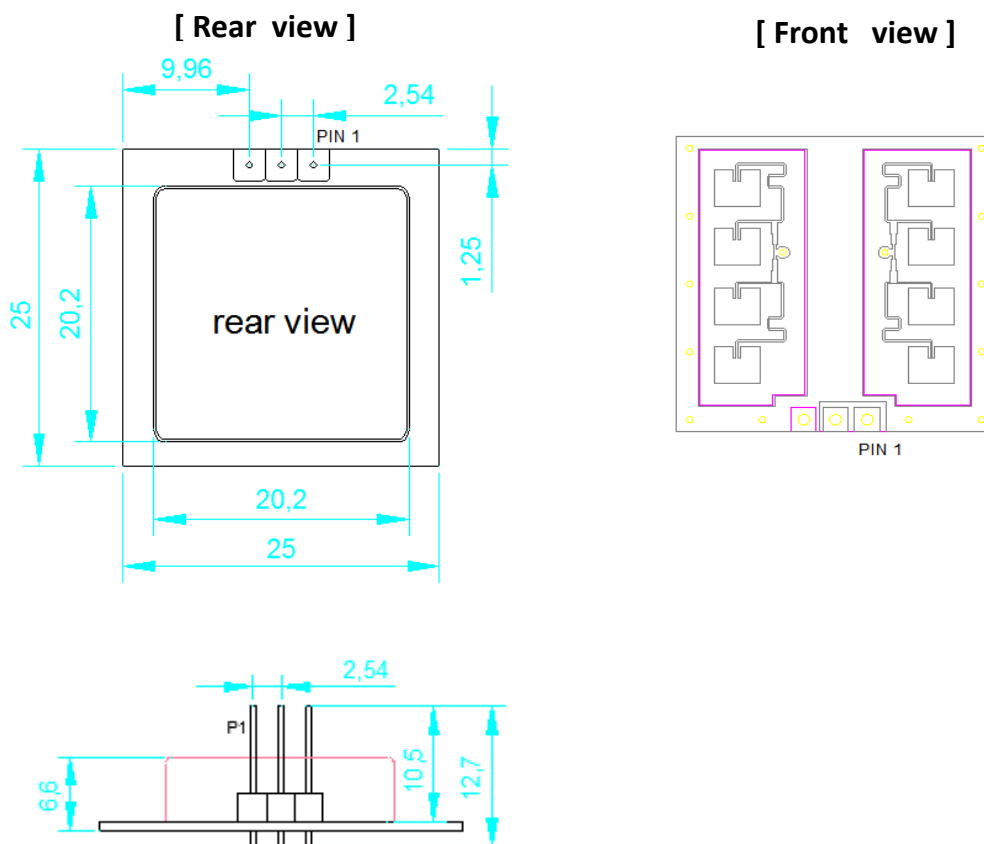
* IF Output is manufacturer's condition, it will be possible to customized.

3. Interface

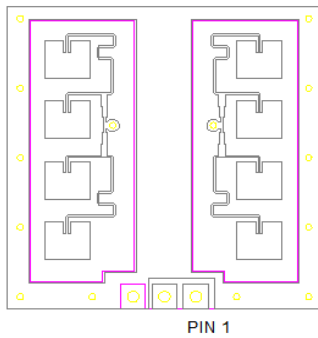
In/Out ports : 2.54mm pitch Pin-headers (Square pin \square 0.64mm)

Pin #	Description	In/Out	Comment
1	Vcc	input	supply voltage (+5 v)
2	IF	output	signal output
3	GND	input	analog ground

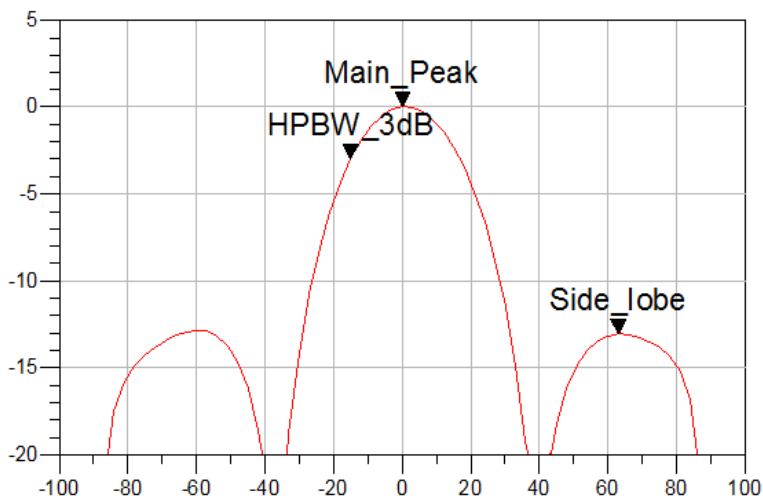
4. Mechanical Outlines (unit : mm)



5. Antenna Pattern Description



[Vertical Pattern]

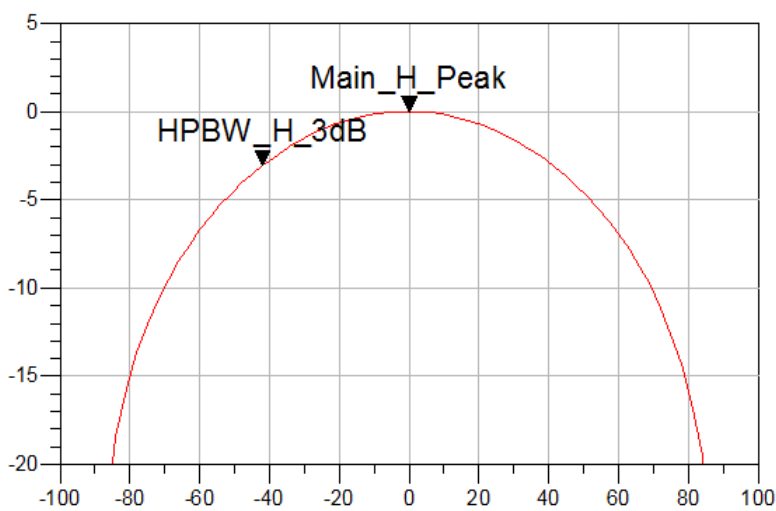


Main_Peak
Theta=-0.000
R_gain1=0.000
Peak

HPBW_3dB
Theta=-15.000
R_gain1=-3.014

Side_lobe
Theta=63.000
R_gain1=-13.079
Peak

[Horizontal Pattern]



Main_H_Peak
Theta=-0.000
R_gain1=0.000
Peak

HPBW_H_3dB
Theta=-42.000
R_gain1=-3.047