

1. SMRS-24GH

Microwave Radar Sensor Module(SMRS)

1.1 Definition

long range more than SMRD-24GM Model

Can be distinguished in the direction of the moving object approaches/ apart.

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		26		deg	
	Vertical		23		deg	
Side lobe level	Hor. / Ver.		13		deg	
IF Output*			4		V	
Supply Voltage		4.75	5	5.25	V	
Supply Current			30	40	mA	
Operating Temp.		-20		+60	°C	
Dimensions		~50 x 33.2 x 7			mm	

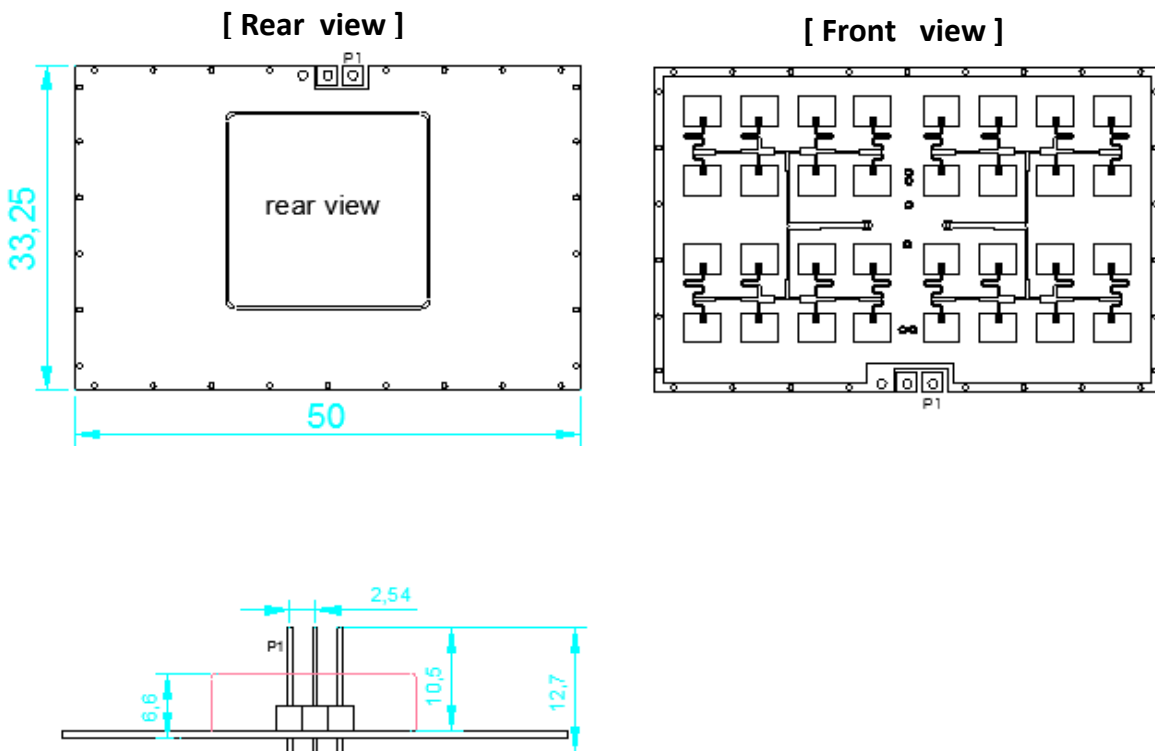
* IF Output is manufacturer's condition, it will be possible to customized.

3. Interface

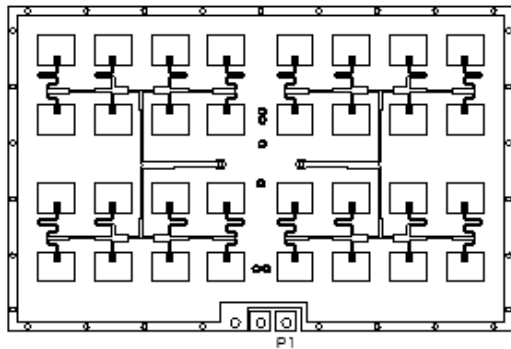
In/Out ports : 2.54mm pitch Pin-headers (Square pin \square 0.64mm)

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

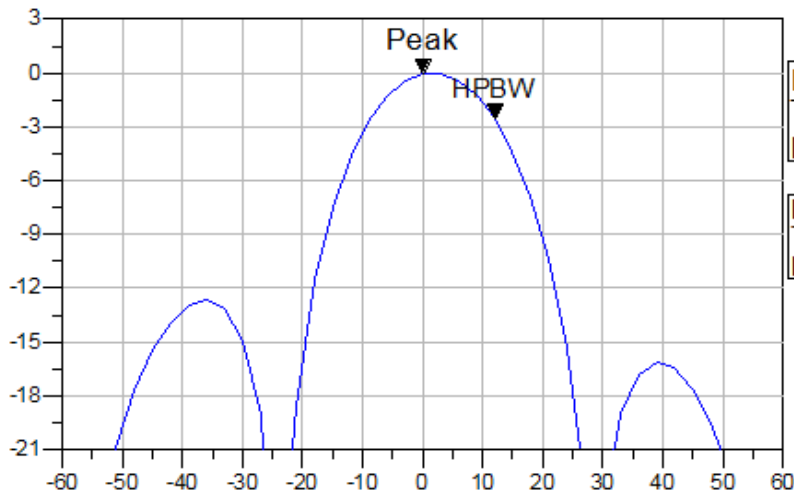


Vertical



Horizontal
Pattern Axis

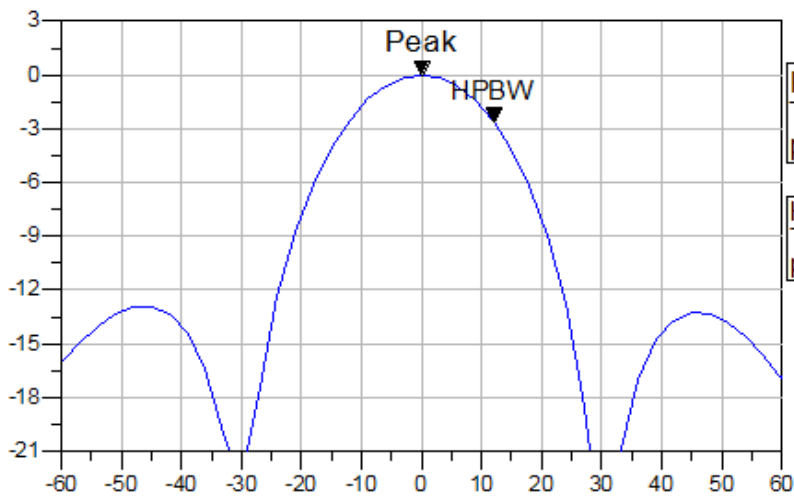
[Vertical Pattern]



Peak
Theta=-0.000
ppa1=-0.001

HPBW
Theta=12.000
ppa1=-2.568

[Horizontal Pattern]



Peak
Theta=0.000
ppa1=0.000

HPBW
Theta=12.000
ppa1=-2.589