

**마이크로웨이브  
동작감지 센서  
(SMRS-24G)**

**S2SYS**

## 1. 개요

본 문서는 S2SYS의 동작감지용 Microwave Radar Sensor Module(SMRS)에 관한 문서이다.

### 1.1 정의

SMRS-24G는 24GHz 대역에서 사용되는 Microwave Radar Sensor Module(SMRS) 이다

## 2. 규격

### 2.1 일반 사양 (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 환경 조건 (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	
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		mA	
Operating Temp.		-20		+60	°C	
Dimensions		~25 x 25 x 7			mm	

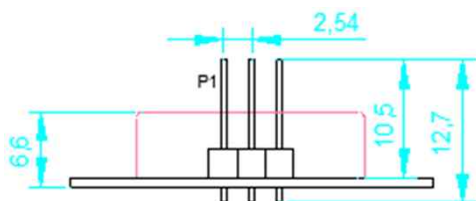
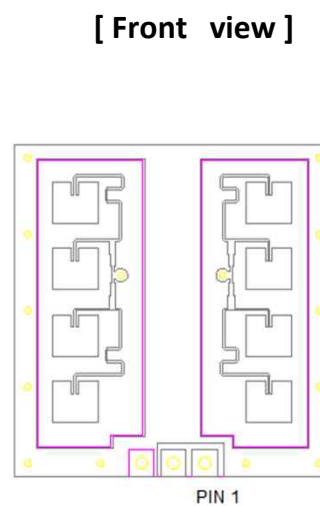
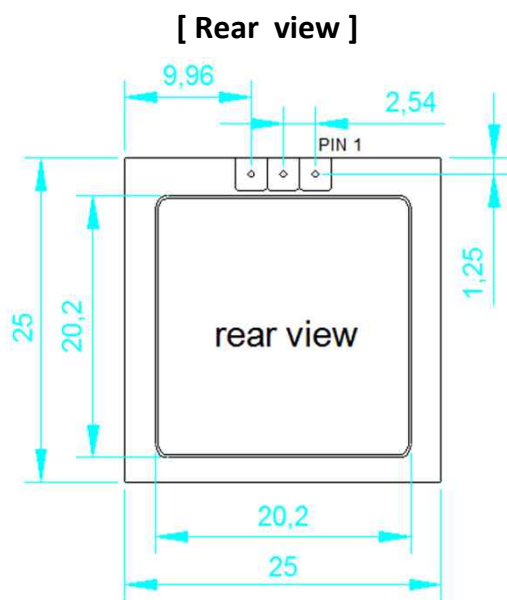
\* IF Output 기준값은 자체 측정 조건이며, 조건에 따라 차이가 발생할 수 있음.

### 3. Interface

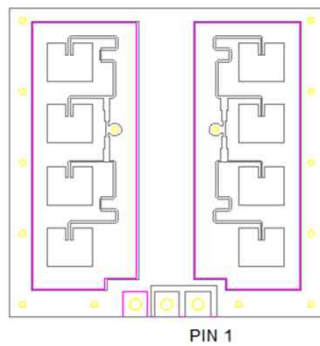
입출력 단자 상호 거리가 2.54mm인 Pin-header를 사용함(Square pin □ 0.64mm)

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

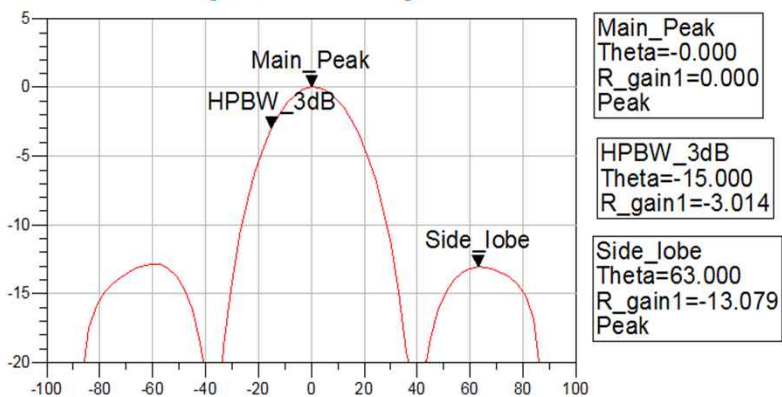


Vertical  
Pattern Axis



Horizontal  
Pattern

[Vertical Pattern]



[Horizontal Pattern]

