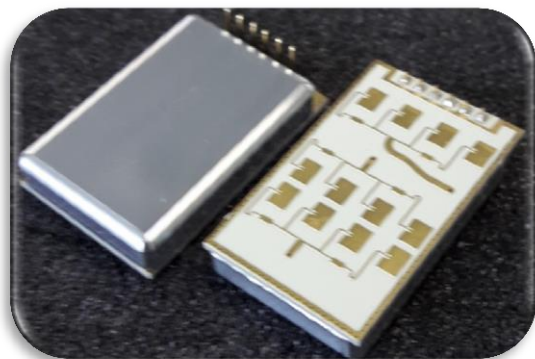


# 24GHz Motion Sensor



## Applications

- Motion Sensor
- Security / Wireless Fence
- Industry / Automatic Door / Smart Light

## Features

- 24GHz 1T2R
- Cost Effective Hybrid Design
- Low Power Consumption

## ELECTRICAL CHARACTERISTICS

Parameter	Conditions	Symbol	Specifications	Units
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### Oscillator

transmit frequency		f <sub>t</sub>	24 - 24.25	GHz
freq@Vtune 0.0V	@25°C	f <sub>0V</sub>	24.021	GHz
freq@Vtune 5.0V	@25°C	f <sub>5V</sub>	24.042	GHz
freq@Vtune 10V	@25°C	f <sub>10V</sub>	24.059	GHz
varactor tuning voltage			0.5 - 10	V
varactor input impedance			10	kΩ
output power (EIRP)	@25°C		12	dBm

### Mixer

type			Mono-Mixer	
principle			homodyne	
conversion loss			8	dB

### power supply

supply voltage			+5, -3.3	V
supply current			35	mA

### Environment

operating temperature			-20 ~ +60	°C
storage temperature			-20 ~ +70	°C

### Mechanical Outlines

Outline dimensions	Height	7.7	mm
	Length	40	
	Width	25	

For the customized specification, price, and delivery ; Contact us

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 TEL : +82-31-713-6105 FAX : +82-31-720-5011 Http://www.genmixtech.com

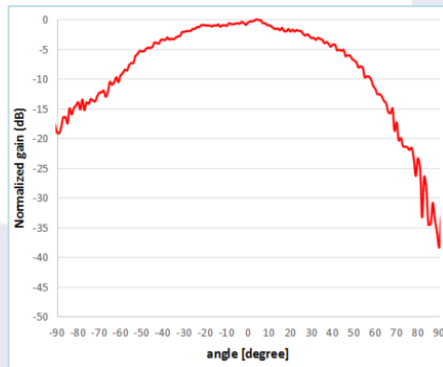
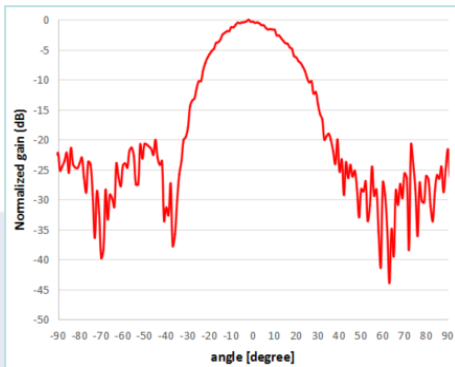
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## Antenna Performance

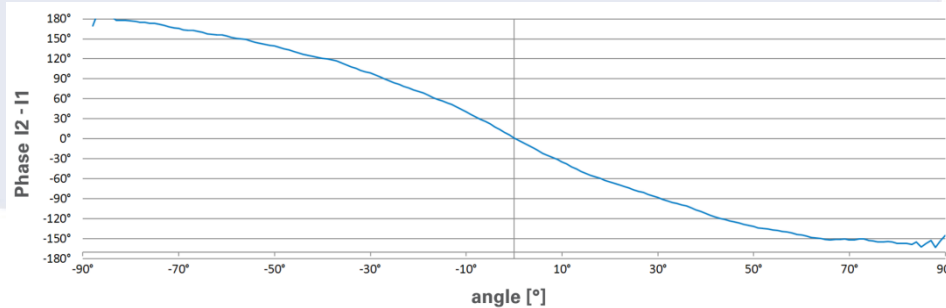
Freq. (GHz)	RL (dB)	Gain (dBi)	BW(E)	BW(A)	SLL (dB)
24.000	21	9.9	27.5	63.3	~ 20
24.125	19.6	8.9	28.3	64.5	~ 20
24.250	18.4	10.3	25.8	62.9	~ 20

## Antenna Pattern

### Elevation & Azimuth



### Azimuth Phase (Reference)



## Interface

The sensor provides a 2.54mm grid, single row pin header (square pin 0.635mm)

Pin #	Description	IN / OUT	Comment
1	$V_{tune}$	Input	Tuning voltage : 0-10V
2	GND	Input	
3	GND	Input	
4	$V_{cc}$ oscillator	Input	Power supply oscillator (positive), 2V
5	Signal I1	Output	Signal In-phase
6	Signal I2	Output	Signal In-phase