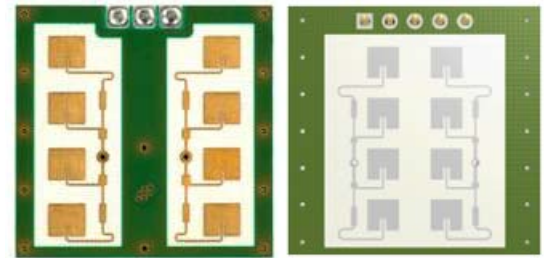


Model No. : DNS-060 K-Band Microwave Motion Sensor Module

■ Features

- K-Band Radar Sensor Module -

- * Doppler radar-based motion detector
- * Available in different frequency ranges
- * Advanced PHEMT-oscillator with low current consumption
- * Split transmit and receive path for maximum gain
- * Mono (single channel) operation for motion detection
- * Very small outline dimensions



■ Specification (Model No.: DNS-060)

Parameter	Min.	Typ.	Max.	Units	Remarks
Transmit frequency	24.000	24.125	24.250	GHz	DNS-060
Output power	12	15	17	dBm	
Temperature drift		1		MHz/°C	
Antenna pattern		80		°	Horizontal
		32		°	Vertical
IF output	0		300	mV	
Supply voltage	4.75	5	5.25	V	
Supply current		30	40	mA	Continuous
Operating temp.	-20		+60	°C	
Detection range		12	15	m	
Weight		6		g	
Dimensions	25 * 25 * 7			mm	

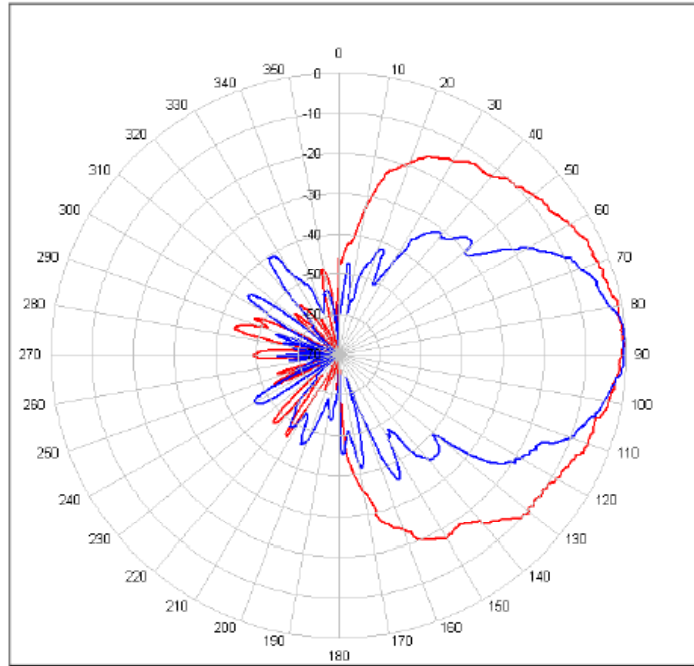
■ Environmental Tests and Handling Precautions:

- This sensor module is sensitive to damage from ESD.
- Normal precautions as usually applied to CMOS devices are sufficient when handling the device. Touching the signal output pins has to be avoided at any time before soldering or plugging the device into a motherboard
- Applying multi-meters e.g. for resistance measurement between any of the connector pins may cause damage to the module.

■ Applications

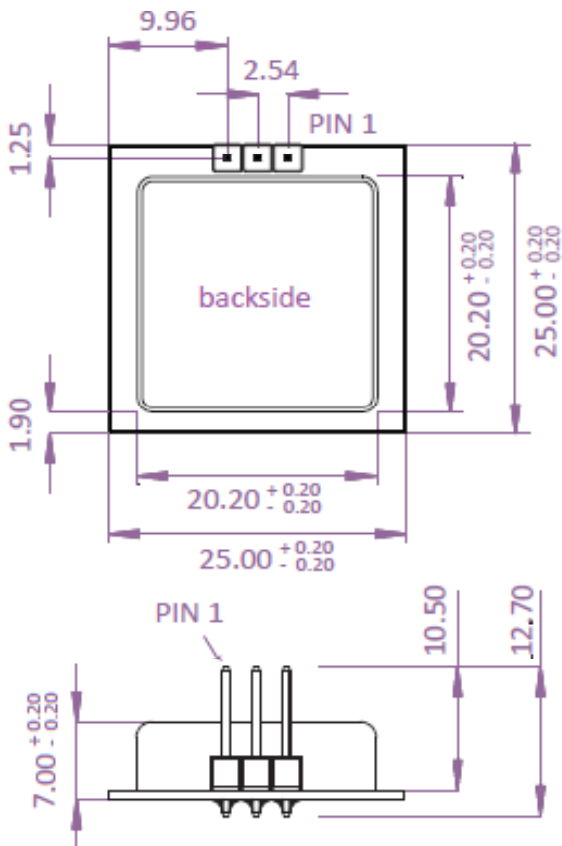
1. traffic / express highway watch and control.
2. security relation products (sensor and alarm set etc).
3. automobile rear collision warning.
4. automatic door activation.
5. sensor light.
6. sensors it applies in all products which operate.

Antenna Pattern

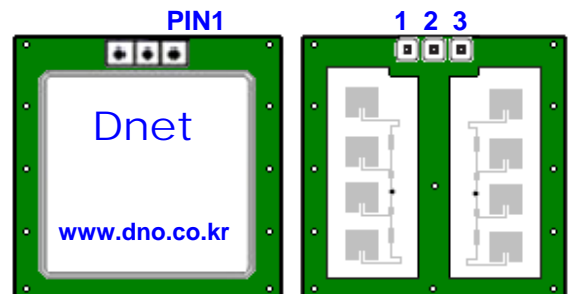


Dimensions & Pin Connection

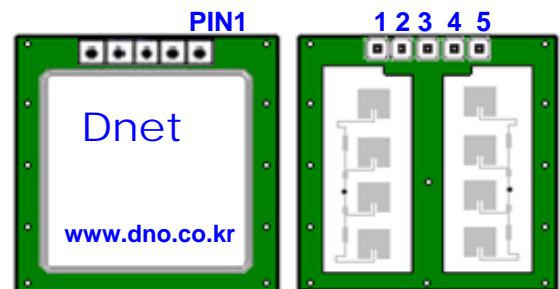
(Unit : mm)



1	VCC	5Vdc supply
2	IF	Signal output
3	GND	Ground



1	NC	Not connected
2	VCC	5Vdc supply
3	IF	Signal 1 output
4	GND	Ground
5	VCO	option



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 LAB & 2nd Factory: 758-1, Yehyeon-ri, Dalseong-gun, Daegu, Korea. (Zip Code: 711-891)
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 Tel. : 82-53-584-3545, 3544 Fax. : 82-53-584-6423

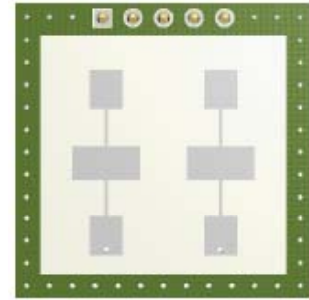
Dnet
Microwave Radar Sensor

Model No. : DNS-070DL K-Band Microwave Motion Sensor Module

■ Features

- K-Band Radar Motion Sensor Module -

- * Doppler radar-based motion detector
- * Available in different frequency ranges
- * Advanced PHEMT-oscillator with low current consumption
- * Split transmit and receive path for maximum gain
- * Dual channel(I/Q) operation
- * Very small outline dimensions



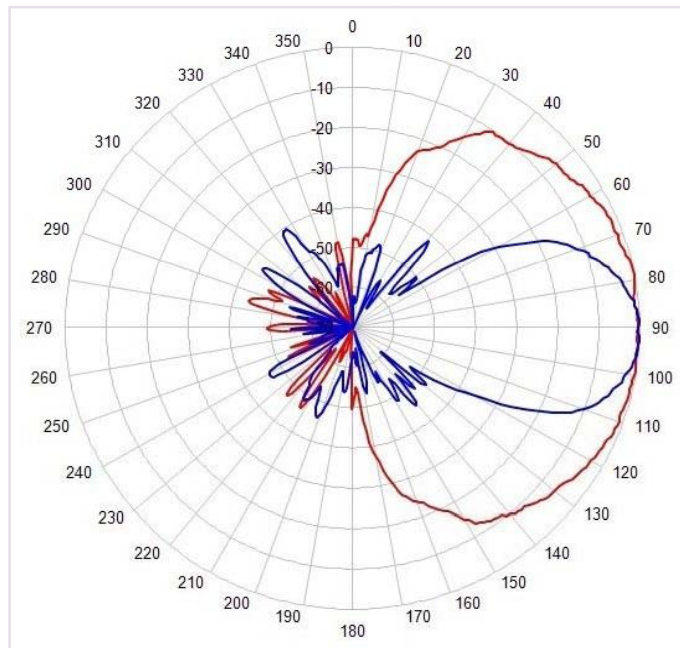
■ Specification(Model No.:DNS-070DL)

Parameter	Min.	Typ.	Max.	Units	Remarks
Transmit frequency	24.000	24.125	24.250	GHz	DNS-070DL
Output power		16	19	dBm	EIRP
Temperature drift		-1		MHz/°C	
Antenna pattern		80		°	Horizontal
		32		°	Vertical
Side-lobe suppression	-12	-20		dB	Horizontal
	-12	-20		dB	Vertical
I/Q balance			3	dB	Amplitude
	80	90	100	°	Phase
IF output	-200		200	mV	
Supply voltage	4.75	5	5.25	V	
Supply current		40	50	mA	Continuous
Operating temp.	-20		+60	°C	
Detection range		15	20	m	
Weight		6		g	
Dimensions	25 * 25 * 7			mm	

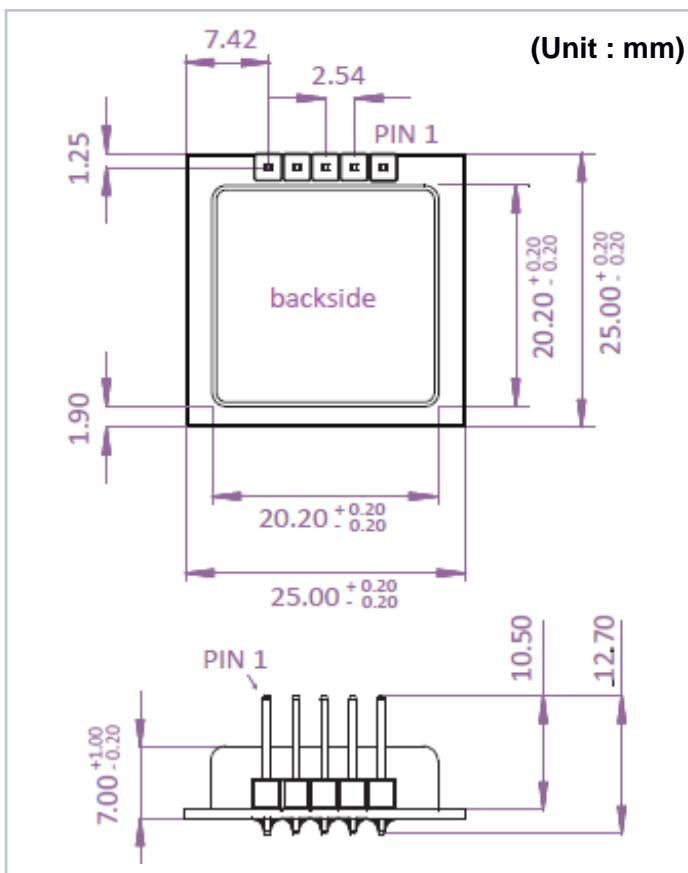
■ Applications

- Security systems
- Directional object speed measurement systems
- Directional movement detectors
- Ranging of moving objects
- Industrial sensors

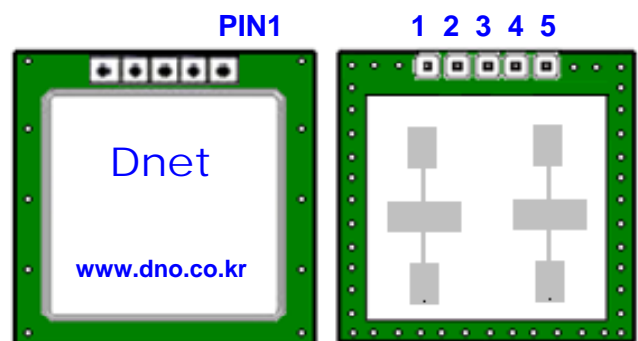
Antenna Pattern



Dimensions & Pin Connection



1	NC	Not connected
2	VCC	5Vdc supply
3	IF 1	Signal 1 output
4	GND	Ground
5	IF 2	Signal 2 output



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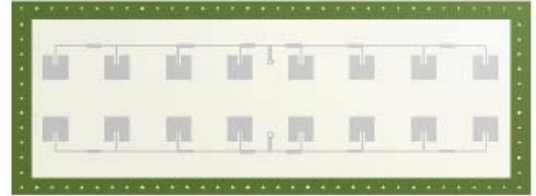
Head Office : 702-9, Hosan-dong, Dalseo-gu, Daegu, Korea. (Zip Code: 704-240)
 LAB & 2nd Factory: 758-1, Yehyeon-ri, Dalseong-gun, Daegu, Korea. (Zip Code: 711-891)
 Web-Site : <http://www.dno.co.kr> E-mail : dneng@dno.co.kr
 Tel. : 82-53-584-3545, 3544 Fax. : 82-53-584-6423

Model No. : DNS-080 K-Band Microwave Motion Sensor Module

■ Features

- K-Band Radar Motion Sensor Module -

- 24 GHz short range transceiver
- Narrow - wide asymmetrical field pattern
- Beam aperture 80°/12°
- High sensitive LNA receiver
- 250MHz wide sweep FM input
- I/Q IF outputs
- Optional IF amplifier (DNS-080:V2)
- Compact size: 66mm x 25mm x 6mm



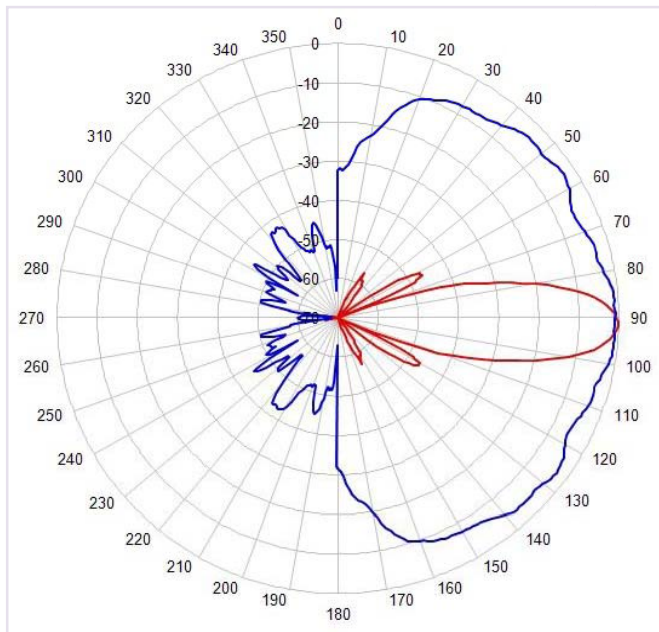
■ Specification (Model No.: DNS-080)

Parameter	Min.	Typ.	Max.	Units	Remarks
Transmit frequency	24.000	24.125	24.250	GHz	DNS-080
Output power	16	18	20	dBm	With LNA
Temperature drift		-1		MHz/°C	
Antenna pattern		80		°	Horizontal
		12		°	Vertical
I/Q Balance		3		dB	Amplitude
	80	90	100		Phase
Side Lobe Suppression		-20		dB	Horizontal
		-18		dB	Vertical
Antenna gain		12.5		dBi	
LNA GAIN		10		dB	
Supply voltage	4.75	5	5.25	V	
Supply current		50	70	mA	Continuous
Operating temp.	-20		+80	°C	
Detection Range		25		m	Person
		50	60	m	Car
Dimension	65 .0* 25.0 * 7.0			mm	

■ Applications

- Indoor and outdoor lighting control applications
- Traffic supervision and counting
- Object speed measurement systems
- Ranging and distance detection
- Industrial sensors

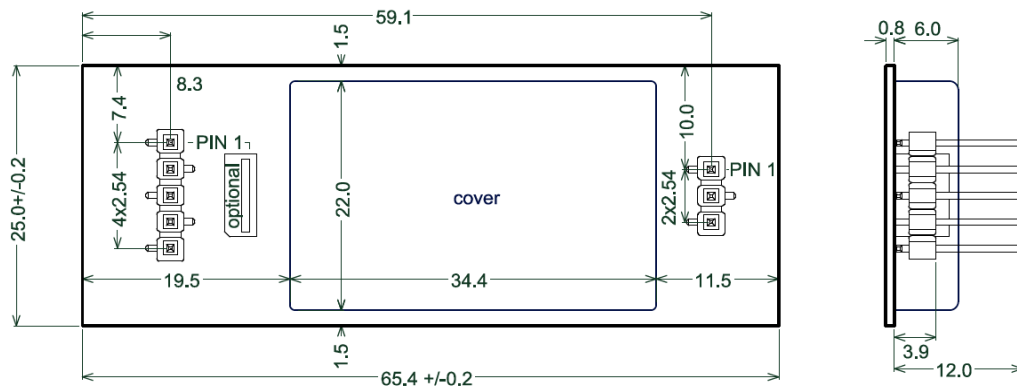
Antenna Pattern



Azimuth 12° , Elevation 80°
At IF output voltage -6dB,
corresponds to -3dB Tx power



Dimensions & Pin Connection



1	IF Output Q	
2	VCC	5Vdc supply
3	IF Output I	
4	GND	Ground
5	VCO In	1V..10V, Open:5V

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