

X-band MIC Doppler Module

Frequency: 10.525GHz

Applicable Regions: Belgium, Netherlands

Model No. NJR4178

Specifications

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New Japan Radio Co., Ltd.

Microwave Components Division

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1. Scope

This specification covers the general requirements for X-band microwave doppler module.

This module is designed for motion sensing applications.

It consists of DRO (Dielectric Resonator Oscillator), balanced Schottky Barrier Diode mixer and Micro-strip Patch Antennas.

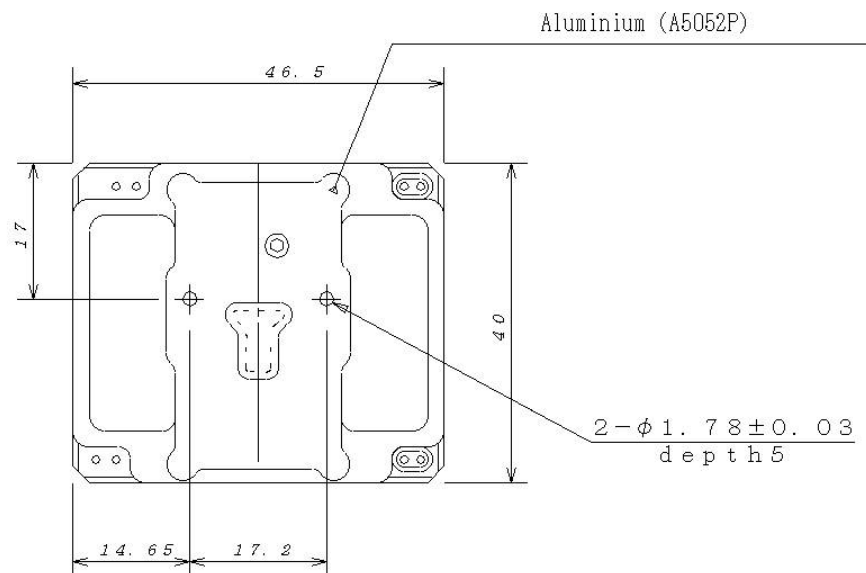
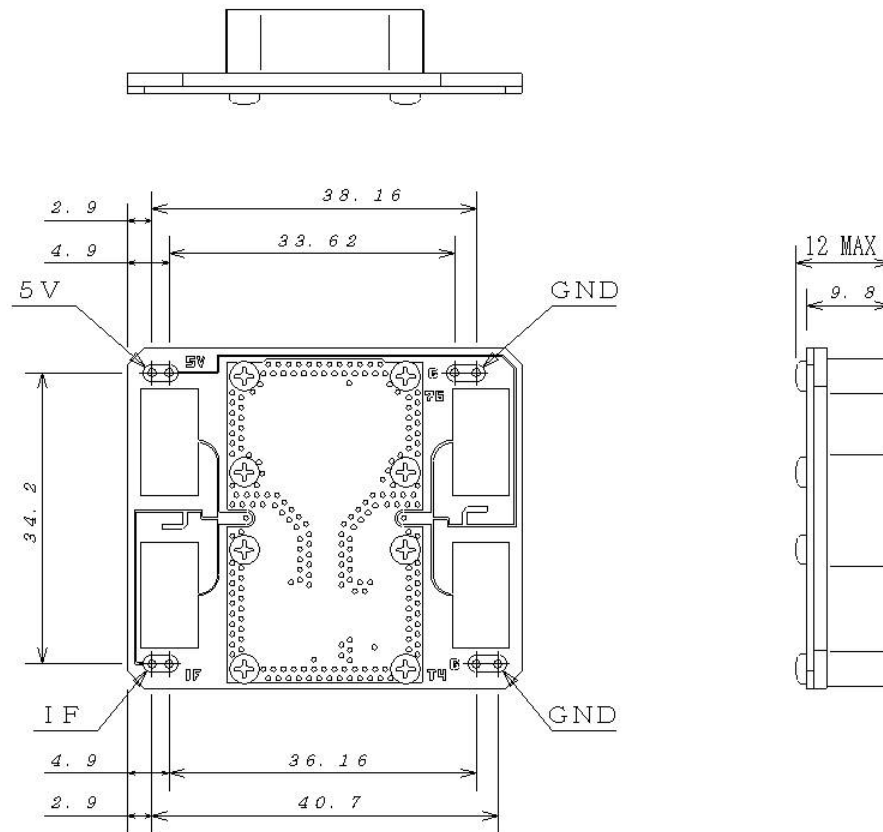
2. Features

- Compact Size
- Low Operating Current : 30 mA
- Detection Target Range : 30 m

3. Specifications

#	Item	Specification
Electrical Characteristics (at +25C, +5VDC)		
1.	Operating Voltage	5.0 +/- 0.2 Vdc
2.	Operating Current	30 mA typ.
3.	Center Frequency	10.525 GHz
4.	Frequency Stability	+/- 5 MHz max. (-30 to +55 C)
5.	Output Power	+13 dBm E.I.R.P.typ.
6.	Return Loss Sensitivity	-90 dBc typ.
7.	Second Harmonic Emission	1 μ W max.
8.	Antenna Beamwidth (-3dB)	
	E-Plane	36 deg. nom.
	H-Plane	72 deg. nom.
Pulse Mode Operation		
1.	Pulse Width	5 μ sec
2.	Duty Cycle	0.01
Absolute Maximum Ratings		
1.	DC Input Voltage	+8 Vdc
2.	Operating Temperature Range	-30 to +55 C
3.	Storage Temperature Rang	-40 to +80 C
4.	Relative Humidity	95 % at 35 C
5.	Vibration	G = 10 (f = 30,50 Hz, t = 10min., Direction; X, Y, Z)
6.	Shock	G = 20 (Half Sine, 10msec., Direction; X, Y, Z)
Regulation		
1.	Regulation for compliance	ETS 300 440

3. Outline Drawing



Unit: mm