



X-band Doppler Module (MIC Type)

MODEL NO. NJR4170

MODEL NO. NJR4171

MODEL NO. NJR4172

<Description>

This specification covers the general requirements for microwave Doppler module. This module is designed for motion sensing applications. This module consists of DRO (Dielectric Resonator Oscillator), balanced Schottky Barrier Diode mixer and Micro-strip Patch Antennas.

<Line-Up>

Model No.	RF Frequency	Output Power	Operating Voltage	Note
NJR4170	10.525 GHz	8 mW EIRP	5 Vdc	CW / Pulse Operation
NJR4171	9.900 GHz			
NJR4172	10.687 GHz			

<Specifications>

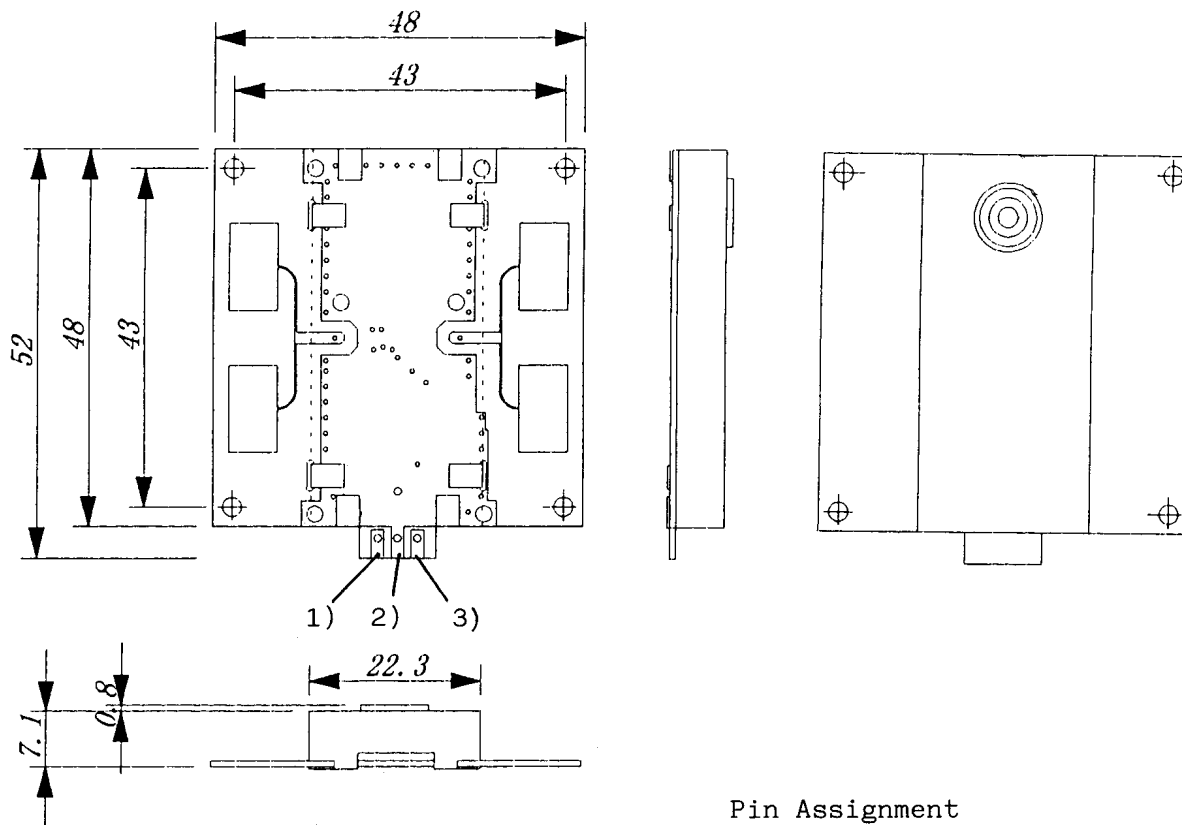
Electrical Characteristics (at +25 °C , +5 Vdc)	Specifications
Operating Voltage	5.0 +/- 0.2 Vdc
Operating Current	30 mA typ.
Center Frequency	NJR4170: 10.525 GHz +/- 5 MHz NJR4171: 9.900 GHz +/- 5 MHz NJR4172: 10.687 GHz +/- 5 MHz
Output Power	8 mW E.I.R.P. typ.
Return Loss Sensitivity	-90 dBc
Second Harmonic Emission	NJR4170: <25 mV/m [at 3 m] NJR4171: -30 dBm max. NJR4172: -30 dBm max.
Antenna Beamwidth (-3 dB)	E-Plane 36 °C H-Plane 72 °C

Pulse Mode Operation	Specifications
Pulse Width	5 micro sec
Duty Cycle	0.01

Absolute Maximum Ratings	Specifications
DC Input Voltage	+8 Vdc
Operating Temperature Range	-30 to +70 °C
Storage Temperature Range	-40 to +80 °C



<Outline Drawing>



Pin Assignment

- 1) Output
- 2) GND
- 3) +5VDC

UNIT: mm



New Japan Radio Co., Ltd.
Microwave Components Division
2-1-1, Fukuoka, Kamifukuoka Saitama
356-8510 JAPAN
Phone : +81-492-78-1270
Fax : +81-492-78-1234
Web Site : <http://www.njr.co.jp>