



X-band Doppler Module (MIC Type)

MODEL NO. NJR4147

MODEL NO. NJR4150

MODEL NO. NJR4151

<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
NJR4147	10.525 GHz	8 mW EIRP	5 Vdc	CW / Pulse Operation
NJR4150				
NJR4151	9.900 GHz			

<Specifications>

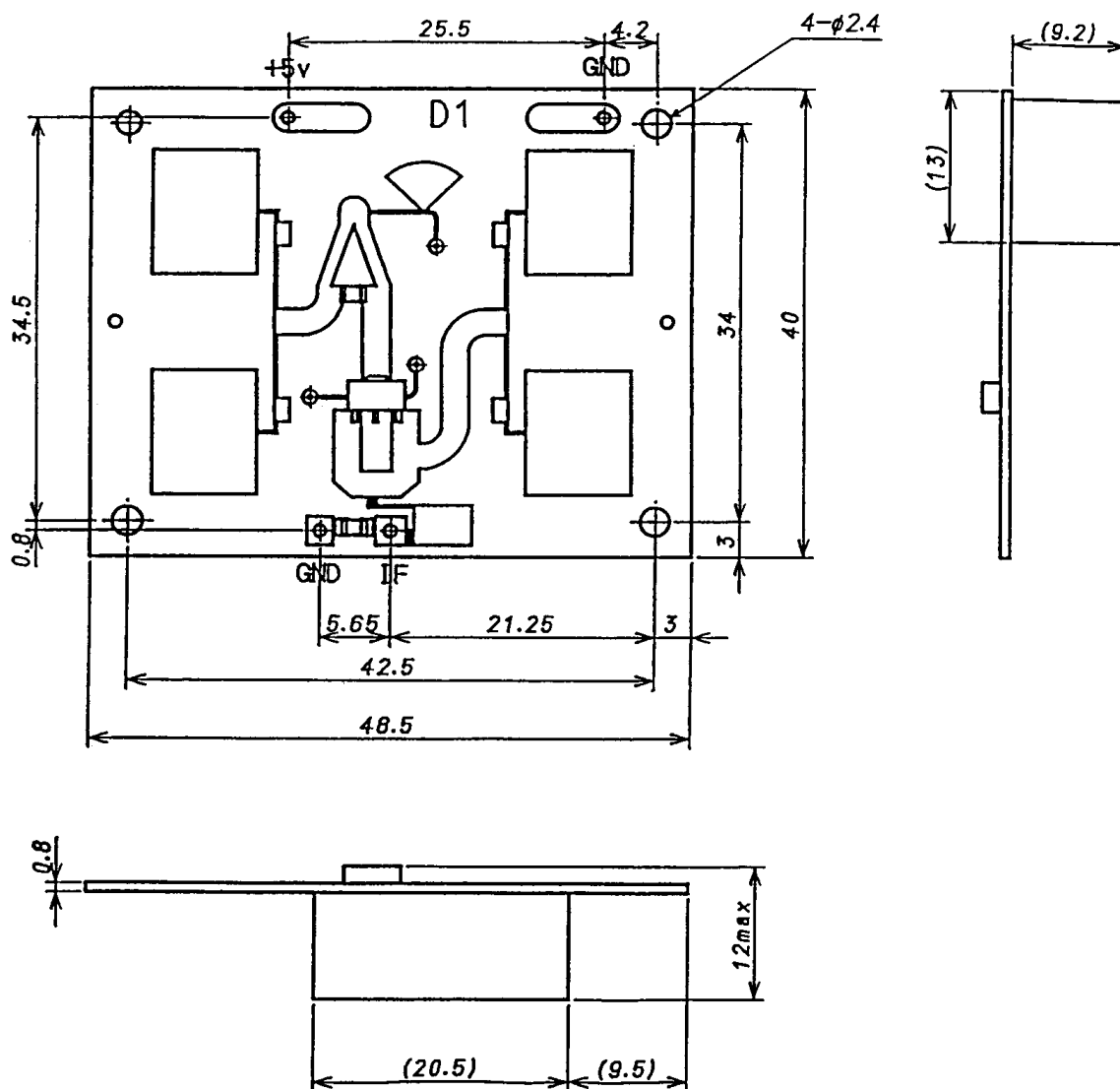
Electrical Characteristics (at +25 °C, +5 Vdc)	Specifications
Operating Voltage	5.0 +/- 0.2 Vdc
Operating Current	25 mA typ.
Center Frequency	NJR4147: 10.525 GHz +/- 5 MHz NJR4150: 10.525 GHz +/- 5 MHz NJR4151: 9.900 GHz +/- 5 MHz
Output Power	NJR4147: 8 mW E.I.R.P. typ. NJR4150: 7 mW E.I.R.P. typ. NJR4151: 8 mW E.I.R.P. typ.
Return Loss Sensitivity	NJR4147: -90 dBc NJR4150: -87 dBc NJR4151: -90 dBc
Second Harmonic Emission	<25 mV/m [at 3 m]
Antenna Beamwidth (-3 dB)	NJR4147: E-Plane 45 °C H-Plane 100 °C NJR4150: E-Plane 45 °C H-Plane 70 °C NJR4151: E-Plane 45 °C H-Plane 100 °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>

Unit : mm



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