

C-band LNA

(IF / DC Power Interface: N-type Female Connector)

Model No. NJS8451 / Insat C-band RF Frequency: 4.5 to 4.8 GHz

Model No. NJS8452 / Palapa C-band RF Frequency: 3.4 to 4.2 GHz

> Specifications Rev.09 March 11, 2012

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New Japan Radio Co., Ltd. Microwave Components Division

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 - * Equipment Used in the Deep Sea
 - * Power Generator Control Equipment (nuclear, steam, hydraulic)
 - * Life Maintenance Medical Equipment
 - * Fire Alarm/Intruder Detector
 - * Vehicle Control Equipment (automobile, airplane, railroad, ship, etc.)
 - * Various Safety Equipment
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- 7. The product specifications and descriptions listed in the catalog and specification sheets are subject to change at any time, without notice.

^{*} Above Specifications are subject to change without notice.



1. Electrical Specifications

1-1.	Input Frequency Band	4.500 to 4.800 GHz < Model No. NJS8451 >
		3.400 to 4.200 GHz < Model No. NJS8452 >
1-2.	Input RF Level	-135 to -65 dBm
1-3.	Input V.S.W.R.	3.0 : 1
1-4.	Noise Temperature (Ta: +25 C)	15 K typ. 30 K max.
1-5.	Conversion Gain (Ta: +25 C)	55 dB min. 62 dB max. \langle Model No. NJS8451 \rangle
		48 dB min. 55 dB max. $<$ Model No. NJS8452 $>$
1-6.	Conversion Gain Ripple (Ta: +25 C)	2 dBp-p max. at 50 MHz segments.
1-7.	Conversion Gain Flatness over Freq. (Ta: +25	3 dBp-p max. at 300 MHz BW
	C)	< Model No. NJS8451 >
		5 dBp-p max. at 800 MHz BW
		< Model No. NJS8452 >
1-8.	Conversion Gain Variation over Temperature	5 dB max.
1-9.	Output Power for 1 dB Gain Compression	+7 dBm min.
1-10.	Output Intercept Point	+19 dBm min.
1-11.	Output V.S.W.R.(50 ohm)	2.0 : 1 typ.
		3.0 : 1 max.
1-12.	Input Voltage	+12 to +28 V DC
1-13.	Current Drain	125 mA typ.
		160 mA max.

2. Mechanical Specifications

2-1.	Input Waveguide Flange	CPR-229G
2-2.	Output Connector	N-type female 50 ohm
2-3.	Dimension & Housing	96.1 mm (L) x 99.6 mm (W) x 76 mm (H) typ.
		[3.78" (L) x 3.92" (W) x 2.99" (H) typ.]
2-4.	Weight	800 g max.
		[1.76 lbs max.]
2-5.	Vibration	5 G (f: 50 Hz, T: 5 min. Direction : X,Y,Z)
2-6.	Shock	15 G (Direction: X,Y,Z)

3. Environmental Specifications

3-1.	Operating Temperature Range	-40 to +60 C
3-2.	Storage Temperature Range	-40 to +80 C
3-3.	Humidity	100 % Rh max.
3-4.	Altitude	15,000 feet
3-5.	Comply with RoHS (Restricting the use of Hazardous Substances) directives	

4. Absolute Maximum Rating

4-1.	RF Input Power	0 dBm		
4-2.	Supply Voltage	+30 V DC		



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Unit:

5. Outline Drawing









6. Label (WEEE / RoHS Compliance)

NJS8451 (Frequency: 4.5 to 4.8 GHz)



NJS8452 (Frequency: 3.4 to 4.2 GHz)





7. Package

Individual Package



①: C-Band LNA
②: Single Wall Corrugated Fiberboard
③: Accessories
④: Label

UNIT:mm



Shipping Package



①: Double Wall Corrugated Fiberboard
②: Polystyrene Foam For Package Cushioning
③: Polystyrene Foam For Package Cushioning
④: Polystyrene Foam For Package Cushioning
⑤: Package Label (MODEL No. QUANTITY)

UNIT:mm