

Ku band Single LNB
Model No. NJR2184HA
Specifications
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New Japan Radio Co., Ltd.

Microwave Components Division

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1. Scope

This specification details the requirements for the low noise amplifier and block downconverter intended for Direct Broadcasting Satellite-to-Home downlink application in 10.95 to 11.70 GHz, Ku-Band. All specifications shall apply throughout the full range of the specified environmental conditions unless otherwise specified.

2. Electrical Specifications

#	Item	Specification
2-1.	Input Frequency Band	10.95 to 11.70 GHz
2-2.	Input Waveguide Flange	WR 75
2-3.	Input V.S.W.R.	2.5 : 1 typ.
2-4.	Noise figure (Ta: +25 C)	1.0 dB max.
2-5.	Output Frequency Band	950 to 1,700 MHz
2-6.	Conversion Gain (Ta: +25 C)	48 dB min. 54 dB typ.
2-7.	Conversion Gain Variation (Ta: +25 C) Over the full frequency band	4.0 dB max.
2-8.	Output Power for 1 dB Gain Compression	0 dBm min.
2-9.	Intermodulation Products (3rd order intermodulation rejection with two -6 dBm output carriers separated by 5 MHz.)	31 dBc min.
2-10.	Local Oscillator Leakage Levels	-50 dBm max. at the waveguide flange. -25 dBm max. at IF port
2-11.	Local Oscillator Frequency Temperature Stability (-40 to +60 C)	9.9995 to 10.0005 GHz [10.000 GHz +/- 500 kHz]
2-12.	Phase Noise	-60 dBc/Hz typ. at 1 kHz offset -90 dBc/Hz typ. at 10 kHz offset -110 dBc/Hz typ. at 100 kHz offset
2-13.	Image Rejection Ratio	40 dB min.
2-14.	Output V.S.W.R. (75 ohm)	2.0:1 typ.
2-15.	Power Requirement	+15 to +24 V dc
2-16.	Current Drain	170 mA max.

3. Environmental Specifications

#	Item	Specification
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.	Vibration	G=5 (f=50±2 Hz, t=5(min), Direction ; X,Y,Z)
3-5.	Shock	G=15 (Direction ; X,Y,Z)

4. Absolute Maximum Rating

#	Item	Specification
4-1.	RF Input Power	-10 dBm (@ CW) +10 dBm (@ Pulse)
4-2.	Supply Voltage	+28 Vdc

5. Outline Drawing

