



Ku band Single LNB  
Model No. NJR2744H series  
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 for use in Ku-Band VSAT remote RF Terminals.

All specifications shall apply throughout the full range of the specified environmental conditions unless otherwise specified.

## 2. Electrical Specifications

#	Item	Specification
2-1.	Frequency Band	11.70 to 12.2 GHz
2-2.	Input Waveguide Flange	WR 75
2-3.	Input V.S.W.R.	2.5:1 typ.
2-4.	Noise Figure (Ta = +25C)	0.5 to 0.8 dB *Remark
2-5.	Output Frequency	0.95 to 1.45 GHz
2-6.	Conversion Gain	55 dB typ. @+25C 50 dB min. 63 dB max. (Ta = -40 to +60 C)
2-7.	Conversion Gain Variation (Ta = +25C)	2 dB max. in any 50 MHz segment over frequency band.
2-8.	IM3	-40 dBc max. @-15dBm IF Output
2-9.	Local Oscillator Leakage Levels	-50 dBm max. at the waveguide flange.
2-10.	Local Oscillator Frequency Stability (Ta = -40 to +60C)	10.750 GHz +/- 900 kHz
2-11.	Image Rejection	40 dB min.
2-12.	Output V.S.W.R.	2.0 : 1 max.
2-13.	Power Requirement	+15 to +24V Option : +12 to +24 V dc
2-14.	Current Drain	110 mA typ. 150 mA max.
2-15.	Phase Noise	-65 dBc/Hz typ. -60 dBc/Hz max. @1 kHz -90 dBc/Hz typ. -80 dBc/Hz max. @10 kHz -110 dBc/Hz typ. -100 dBc/Hz max. @100 kHz

## 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)

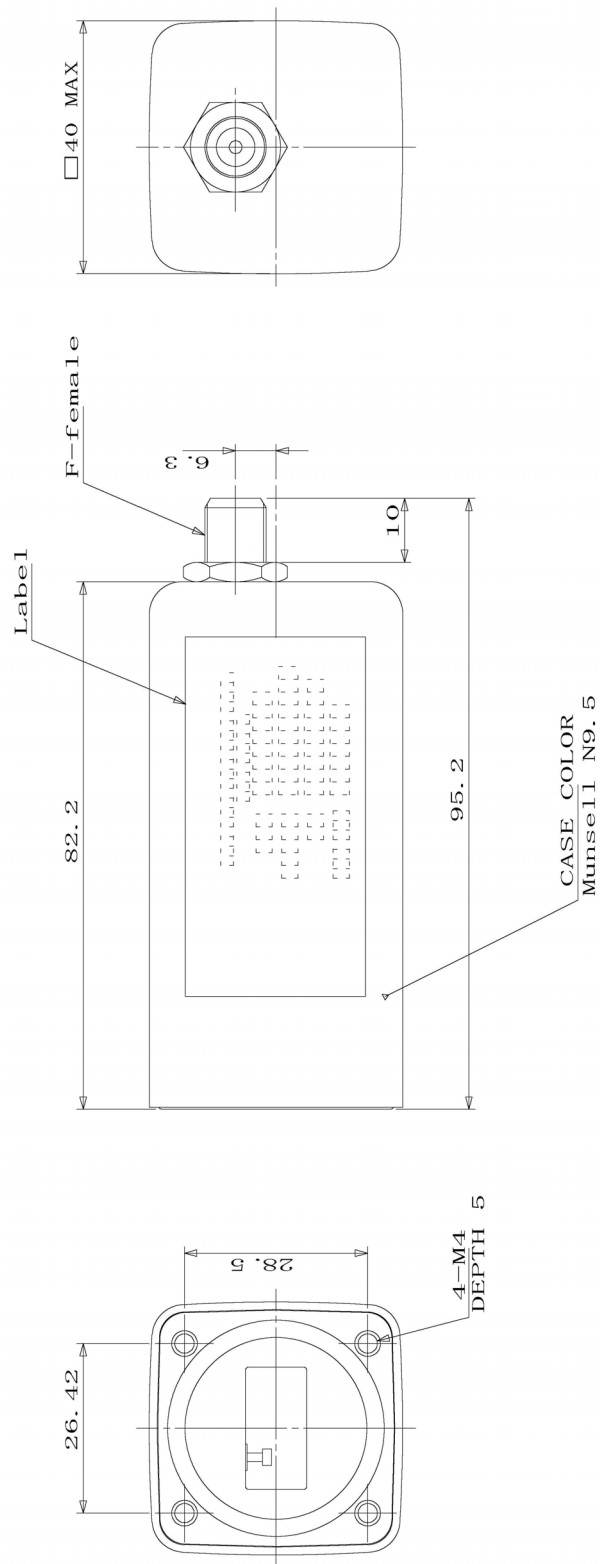
## 4. Absolute Maximum Rating

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

\*Remark : The type No. of the NJR2744H is changed by maximum Noise Figure as follows.

NJR2744HK 0.8 dB max  
 NJR2744HL 0.7 dB max.  
 NJR2744HM 0.6 dB max.  
 NJR2744HN 0.5 dB max.

### 5. Outline Drawing



Unit : mm