

- Specification -

Universal Ku-band PLL LNB

RF Frequency: 10.7 to 12.75 GHz

Model No. NJR2842A1

IF Output / DC Power Input: F-type Female Connector

Band Select Function: 22 kHz Tone

Input Frequency: (Low) 10.7 – 11.7 GHz / (High) 11.7 – 12.75 GHz

Input Frequency Band Select: Outside Rotary Switch

Internal Reference, Local Stability: +/-35 ppm

1. Electrical Specifications

#	Items	Specifications
1.1.	Input Frequency Band [Low band] [High band]	10.70 to 11.70 GHz 11.70 to 12.75 GHz
1.2.	Output Frequency Band [Low band] [High band]	950 to 1,950 MHz 1,100 to 2,150 MHz
1.3.	Local Frequency [Low band] [High band]	9.75 GHz 10.60 GHz
1.4.	Conversion Gain	48 dB min., 62 dB max.
1.5.	Gain Variation	6 dB max. over frequency 1.5 dB max. in any 36 MHz segment
1.6.	Noise Figure [at + 25 degree C] [over temperature]	0.9 dB typ. 1.1 dB typ.
1.7.	Output Power for 1 dB Gain Compression	0 dBm min. @ +25C
1.8.	Output Intercept Point of 3 rd Order Intermodulation	+5 dBm min.
1.9.	Tx Signal Immunity [Gain Change] [Noise Figure Change]	0.2 dB max. 0.1 dB max. at -20 dBm Tx Input
1.10.	Local Stability (Initial Setting Error & Over Temperature)	+/- 35 ppm max.
1.11.	L. O. Phase Noise (SSB)	-50 dBc/Hz typ. @ 100 Hz -70 dBc/Hz typ. @ 1 kHz -75 dBc/Hz typ. @ 10 kHz -85 dBc/Hz typ. @ 100 kHz -105 dBc/Hz typ. @ 1 MHz
1.12.	Integrate Phase Jitter (DSB)	2.5 deg RMS max. @ 100 Hz to 1 MHz
1.13.	Local Leakage Levels	-40 dBm max. at the IF Output Connector -60 dBm max. at the RF Input Flange
1.14.	Image Rejection	40 dB min.
1.15.	Spurious	a) -120 dBm max. at input, fixed frequency spur, unrelated to test CW signal. b) -40 dBc typ., -30 dBc max. with test CW signal -10 dBm IF output
1.16.	Input V.S.W.R.	2.5 : 1 typ.
1.17.	Output Impedance	75 ohms nom.
1.18.	Output V.S.W.R.	2.3 : 1 max.

#	Items	Specifications
1.19.	Requirement for DC Supply [Input Port] [Input Voltage] [Current Drain]	IF Output Connector (Combine DC Supply with IF Signal) +10 to +24 VDC 145 mA typ., 170 mA max.
1.20.	Frequency Band Select Function [Select Type] [Input Port] [Wave Form] [Frequency] [Duty Cycle]	22 kHz Tone Low Band: 0 to 0.2 Vp-p High Band: 0.4 to 0.8 Vp-p IF Output Connector (Combine DC Supply with IF Signal) Square-wave 22 +/- 4 kHz 30 to 70 %

2. Mechanical Specifications

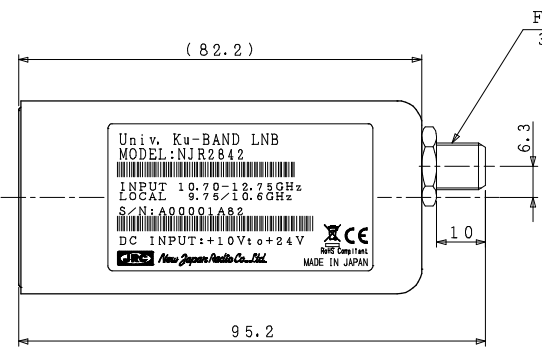
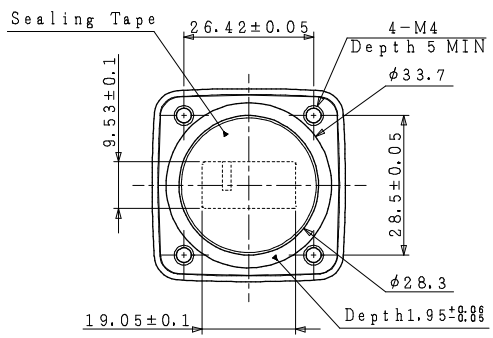
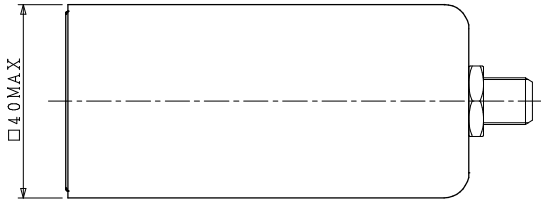
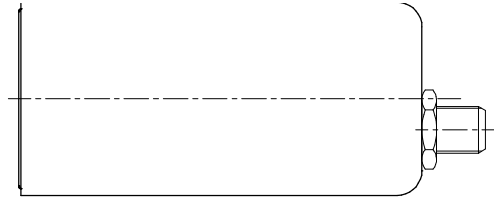
#	Items	Specifications
2.1.	Input Interface	Waveguide, WR-75 with Groove
2.2.	Output Interface	F-type, Female connector
2.3.	Dimension & Housing (without Interface Connector)	(L) 82.2 x (W) 40 x (H) 40 mm
2.4.	Weight	210 g [0.46 lbs]

3. Environmental Specifications

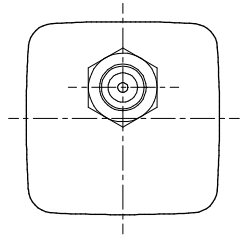
#	Items	Specifications
3.1.	Temperature Range (ambient) [Operating] [Storage]	-40 to +60 °C -40 to +80 °C
3.2.	Humidity	0 to 100 %
3.3.	Altitude	15,000 feet (4,572 m)
3.4.	Vibration	5 G [49.03 m/s ²] (3 axis, 50 Hz)
3.5.	Shock	15 G [294.20 m/s ²] (3 axis)
3.6.	Waterproof / Dustproof (IP Code)	IP 67
3.7.	Regulations	EU Directive (CE Marking) Radio Equipment Directive (2014/53/EU) RoHS (2011/65/EU) Safety: EN60950-1

4. Outline Drawing

Unit: mm
Tolerance ±0.5

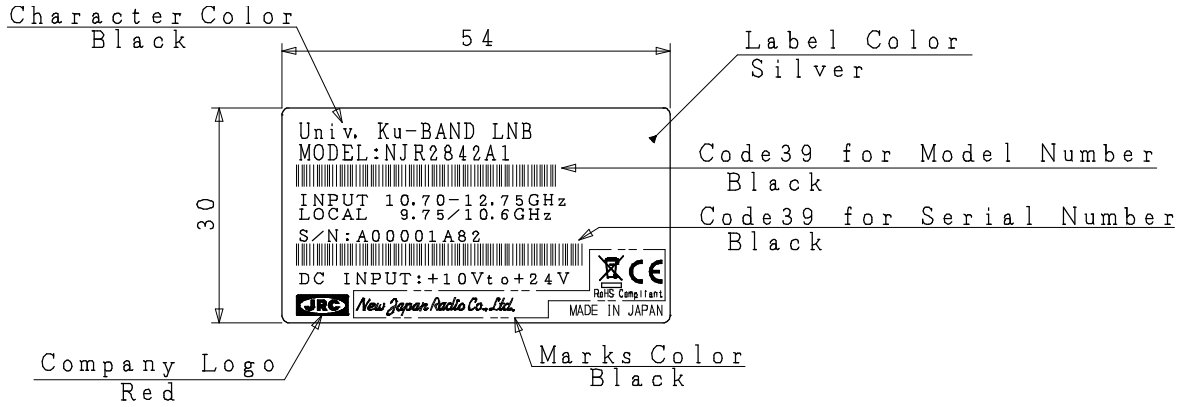


F-Female Connector
3/8-32UNEF



5. Label

5.1. Label Outline

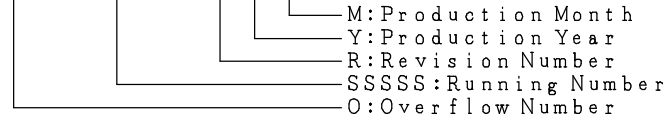


UNIT: mm

5.2. Definitions

Serial Number (OSSSSSRYM) - ALPHANUMERIC (9 characters)

A00001A82



O: Overflow Number - ALPHABET (1 character)
"A" to "Z", e.g.: A99999 ⇒ B00001

SSSSS: Running Number - NUMBER (5 digits)
"00001" to "99999"

R: Revision Number - ALPHABET (1 character)
"A" to "Z"

Y: Production Year - NUMBER (1 digit)
Calendar Number, e.g.: 2010:0, 2011:1, 2012:2...

M: Production Month - ALPHANUMERIC (1 character)
"1" to "9", "X" as October, "Y" as November, "Z" as December