

Universal Ku-band PLL LNB

RF Frequency: (Low band) 10.7 to 11.7 GHz
(High band) 11.7 to 12.75 GHz
Local Frequency: (Low band) 9.75 GHz
(High band) 10.6 GHz

Model No. NJR2842A3

Local Selection: 22kHz Tone
LO Stability: Internal Reference, +/-35 ppm
IF / DC Power Interface: F-type Female Connector

Specifications

Rev.01 October 10, 2014

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New Japan Radio Co., Ltd.
Microwave Components Division

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1. Electrical Specifications

#	Item	Specification
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	0.8 dB typ., 1.0 dB max.
1-7.	Output Power for 1 dB Gain Compression	0 dBm min. @ +25 C
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. Drift Rate	T.B.D. 100 Hz/sec. max.
1-12.	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 In case of E-type, depend on External Reference Stability
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. (F-type Female Connector)
1-18.	Output V.S.W.R.	2.3 : 1 max.

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#	Item	Specification
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 170 mA max.
1-20.	Frequency Band Select Function [Select Type] [Band Selection] [22kHz Specifications]	22 kHz Tone (Compliance with DiSEqC Standard) Low Band: 0 to 0.2 Vp-p High Band: 0.4 to 0.8 Vp-p Input Port: IF Output Connector (Combine DC Supply with IF Signal) Wave Form: Square-wave Frequency: 22 +/- 4 kHz Duty Cycle: 30 to 70 %

2. Mechanical Specifications

#	Item	Specification
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 [(L) 3.24" x (W) 1.57" x (H) 1.57"]
2-4.	Weight	210 g [0.46 lbs]

3. Environmental Specifications

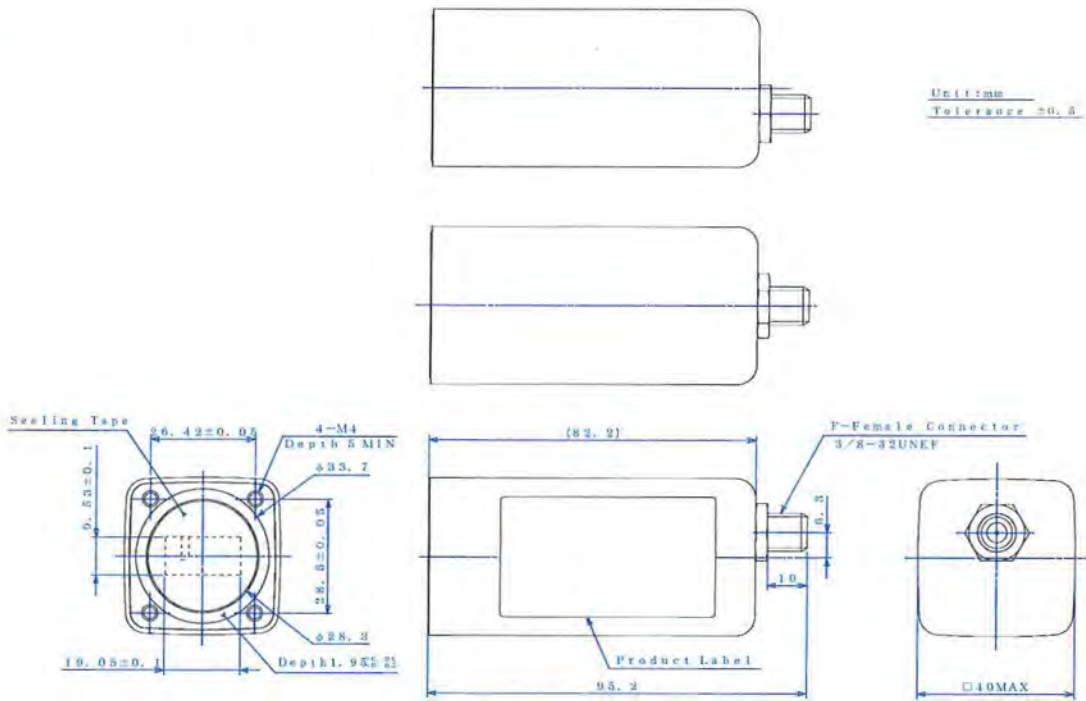
#	Item	Specification
3-1.	Temperature Range (ambient) [Operating] [Storage]	Operation Guarantee: -40 to +65 °C Performance Guarantee: -40 to +60 °C -40 to +80 °C
3-2.	Humidity	0 to 100 % Rh
3-3.	Altitude	15,000 feet max.
3-4.	Vibration	5 G (f: 50 Hz, T: 5 min. Direction: X,Y,Z)
3-5.	Shock	15 G (Direction: X,Y,Z)
3-6.	Waterproof / Dustproof (IP Code)	IP 67 *1
3-7.	Comply with RoHS (Restricting the use of Hazardous Substances) directives	

*1: Conditioned on connection with waveguide.

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Preliminary

4. Outline Drawing



5. Label

- Product Label

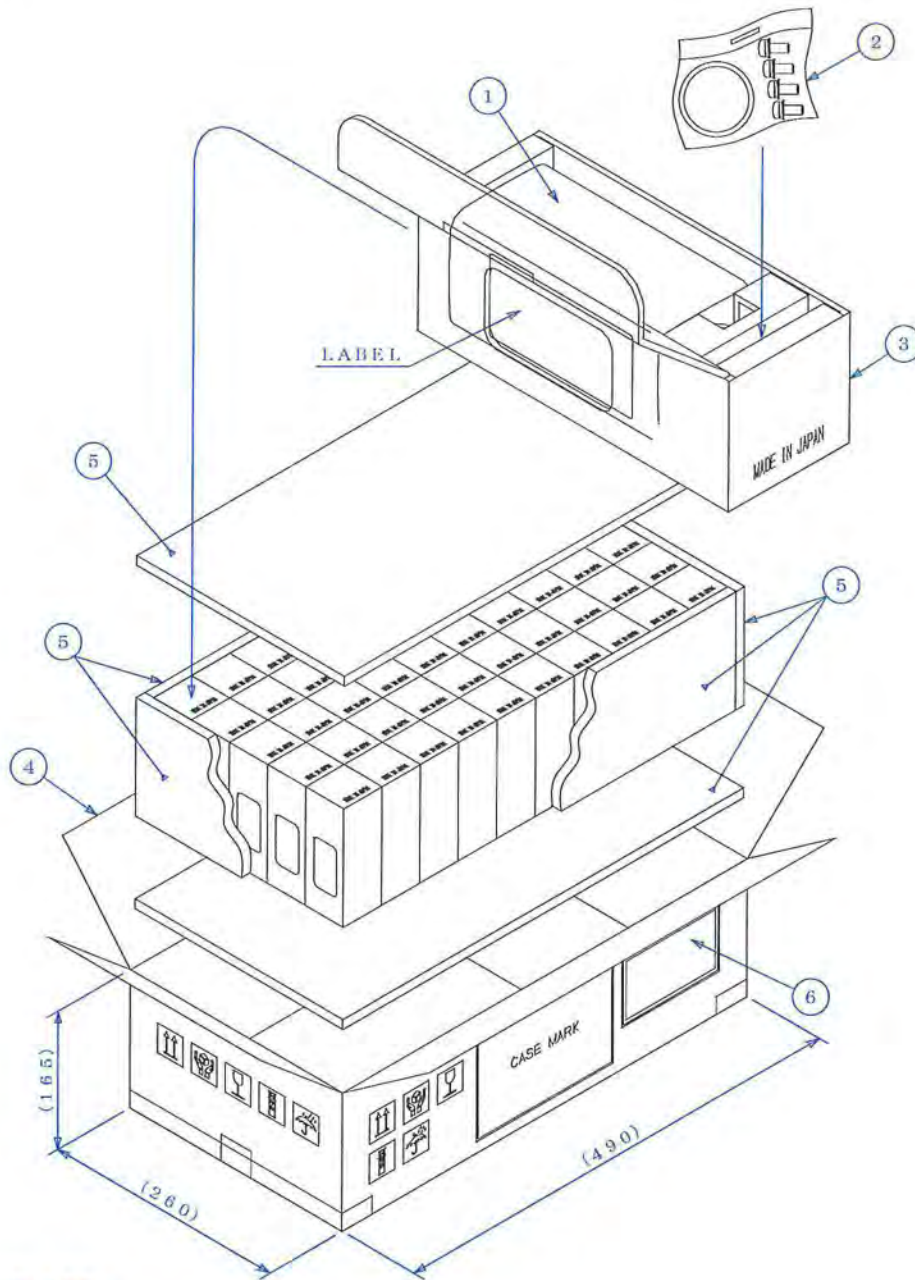
T.B.D.

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6. Packing



- ①: LNB
- ②: Accessory
O-RING, Screw (M4X12 4Pieces SUS, SW and W)
- ③: Single Wall Corrugated Fibreboard
- ④: Double Wall Corrugated Fiberboard
- ⑤: Polystyrene Foam For Package Cushioning
- ⑥: Package Label (MODEL No, QUANTITY)

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