

The Unit (Low Noise Amplifier with Downconverter, a weatherized housing for outdoor use) downconverts K-band RF signal (17.852 to 19.300 GHz) to L-band IF signal.

< **Features** >

- * **RF Frequency:**
 - 17.852 - 18.588 GHz with 16.800 GHz LO
 - 18.372 - 19.300 GHz with 17.400 GHz LO
- * **Low Noise Temperature:**
 - Noise Temperature: 101 K typ., 120 K max.
- * **Automatic Phase-locked to Internal / External Reference**
- * **Reliable All-weather Performance**



< **Line-up** >

Model No.	RF Frequency	Local Frequency	IF Frequency	LO Stability	Noise Temperature	Power Supply
NJR2828L	17.852 to 18.588 GHz	16.800 GHz	1,052 to 1,788 MHz	Int. / Ext. Ref. * Note 1 + / - 1.5 ppm	101 K typ. 120 K max.	+ 18 - + 30 V DC Power
NJR2828H	18.372 to 19.300 GHz	17.400 GHz	972 to 1,900 MHz			

* Note 1: The local oscillator shall be automatically phase-locked to an internal reference when no external reference is present.

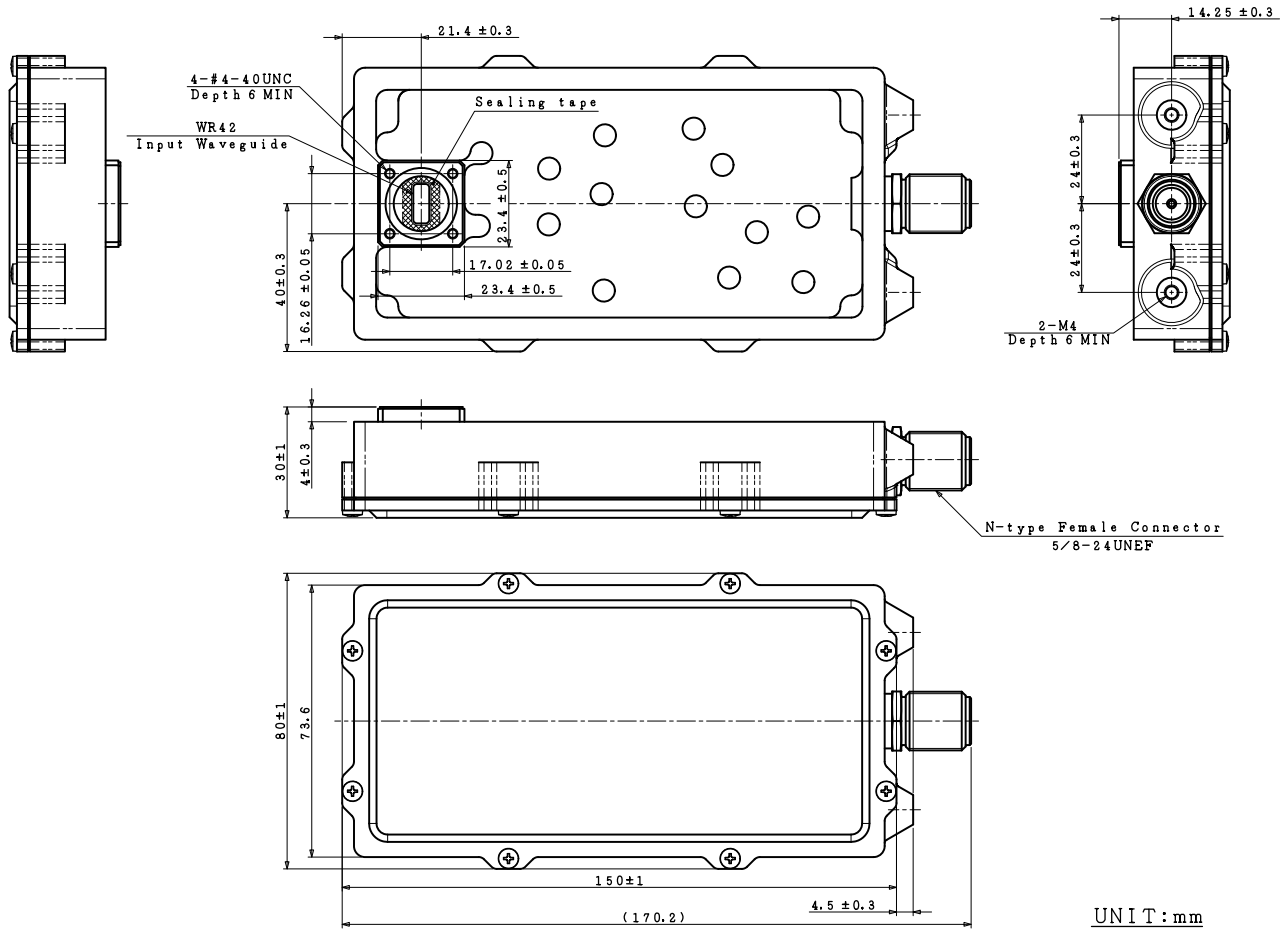
< **Specifications** >

Item	Specifications
Input Interface	Waveguide, WR42 with Groove
Output Interface	N-type, female connector (50 ohm)
Noise Temperature	101 K typ., 120 K max.
Conversion Linear Gain	55 dB min.
Power Output at 1dB G.C.P.	+ 10 dBm min.
The Third Order Intercept Point	+ 20 dBm min.
Local Oscillation	Automatic Phase-locked to either Internal or External Reference The local oscillator shall be automatically phase-locked to an internal reference when no external reference is present.
Requirement for External Reference	[Frequency] 10 MHz (sine-wave)
	[Input Power] -5 to +5 dBm @ Input port
	[Phase Noise] -105 dBc/Hz max. @ 10 Hz, -130 dBc/Hz max. @ 100 Hz, -150 dBc/Hz max. @ 1 kHz, -155 dBc/Hz max. @ 10 kHz
Internal Reference Stability	Over Temperature and Initial Setting: +/- 1.5 ppm max. Long term over All Conditions: +/- 3.5 ppm max.
L.O. Phase Noise	-63 dBc/Hz max. @ 100 Hz -73 dBc/Hz max. @ 1 kHz -83 dBc/Hz max. @ 10 kHz -93 dBc/Hz max. @ 100 kHz
Input Return Loss	10 dB
Output Return Loss	10 dB
Power Requirement	+ 18 to + 30 V DC Power
Power Consumption	4.3 W max.
Temperature Range (ambient)	Operating: -20 to +55 °C Storage : -20 to +55 °C
Dimension & Housing	150 mm (L) x 80 mm (W) x 30 mm (H) [5.91" (L) x 3.15" (W) x 1.18" (H)] without Interface Connectors
Weight	500 g [1.1 lbs]

*Note: The contents of this sheet are subject to change without notice.



< Outline Drawing >



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Rev.02 O3b K PLL LNB_NJR2828