



External Reference Type Ku-band PLL LNB

MODEL NO. NJR2633E / EN0 **MODEL NO. NJR2636E / EN0**

MODEL NO. NJR2634E / EN0 **MODEL NO. NJR2637E / EN0**

MODEL NO. NJR2635E / EN0 **MODEL NO. NJR2639E / EN0**

<Description>

This specification defines the Low Noise Block downconverter (LNB) intended for the satellite data communication downlink application in the Ku-band. This LNB has a combined 3-stage HEMT amplifier and block downconverter with Phase Locked Local, which is constituted with a VCO, SPD (Sampling Phase Detector), Loop Filter and Reference Recovery VCXO providing low phase noise. All specifications shall apply throughout the full range of the specified environmental conditions unless otherwise specified.

<Line-Up>

| Model No. | RF Frequency | Local Frequency | Local Stability | IF Frequency |
|----------------|--------------------|-----------------|----------------------------------|------------------|
| NJR2637E / EN0 | 10.95 to 11.70 GHz | 10.00 GHz | Depends on External reference | 950 to 1,700 MHz |
| NJR2639E / EN0 | 11.20 to 11.70 GHz | 10.25 GHz | | 950 to 1,450 MHz |
| NJR2633E / EN0 | 11.45 to 11.95 GHz | 10.50 GHz | | 950 to 1,450 MHz |
| NJR2635E / EN0 | 11.70 to 12.20 GHz | 10.75 GHz | | 950 to 1,450 MHz |
| NJR2634E / EN0 | 12.20 to 12.70 GHz | 11.25 GHz | | 950 to 1,450 MHz |
| NJR2636E / EN0 | 12.25 to 12.75 GHz | 11.30 GHz | | 950 to 1,450 MHz |

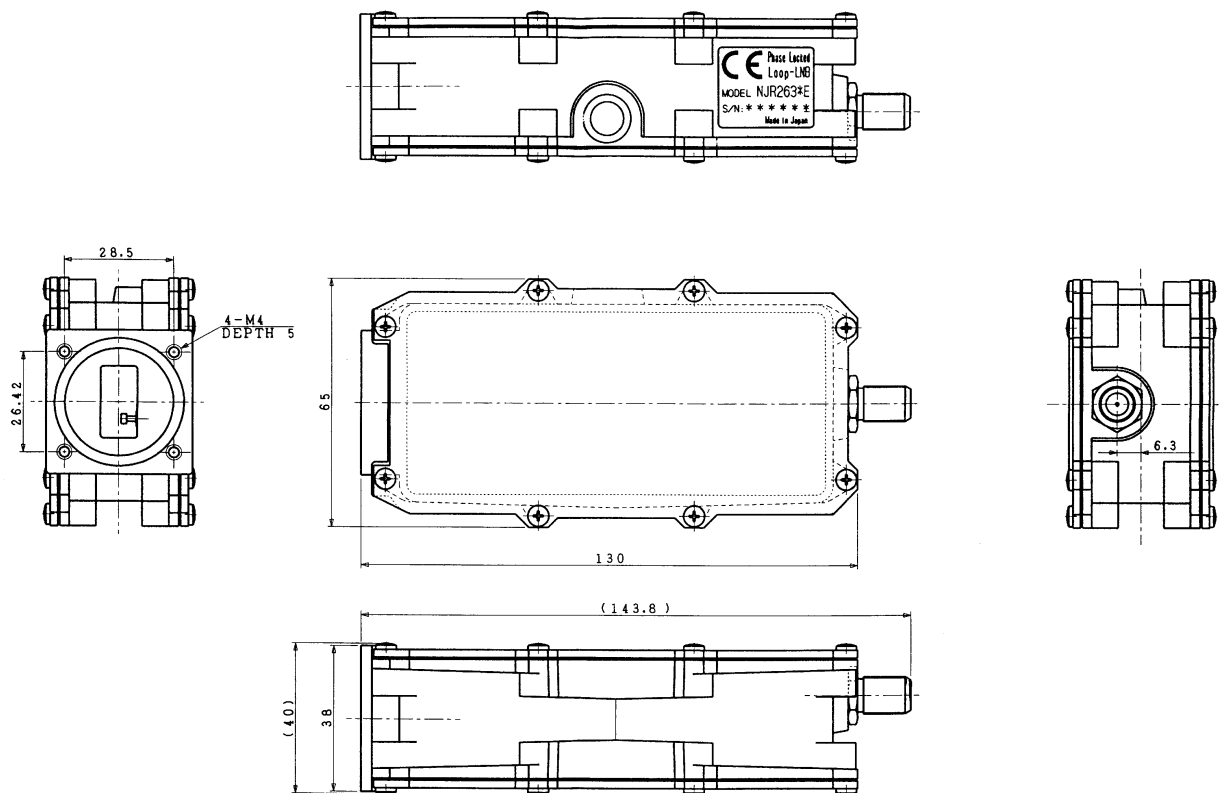
<Specifications>

| Item | Specifications |
|--------------------------------------|--|
| Input Waveguide Flange | WR75 |
| Output Connector | Type F-female (75 ohm) <Model No. NJR2633E / 34E / 35E / 36E / 37E / 39E > Type N-female (50 ohm) <Model No. NJR2633EN0 / 34EN0 / 35EN0 / 36EN0 / 37EN0 / 39EN0 > Option1: N-male, Option2: TNC female |
| Noise Figure (at 25 °C) | 0.9 dB typ. |
| Conversion Gain (at 25 °C) | 55 dB min. 60 dB typ. |
| Conversion Gain Variation (at 25 °C) | 2 dB max. In any 50 MHz segment over the frequency band. |
| P1dB | +10 dBm min. |
| Phase Noise (SSB) | -63 dBc/Hz at 100 Hz -73 dBc/Hz at 1 kHz -83 dBc/Hz at 10 kHz -93 dBc/Hz at 100 kHz |
| External Reference Input Frequency | 10 MHz |
| External Reference Input Power | -10 to 0 dBm (75ohm or 50 ohm) @ IF output connector |
| External Reference Input Port | IF output connector (combine reference with IF signal) |
| External Reference Phase Noise | -135 dBc/Hz at 100Hz -143 dBc/Hz at 1kHz -145 dBc/Hz at 10kHz (Input Condition) |
| Spurious | -140 dBm max. At input, fixed frequency spurious, unrelated to test CW signal. -50 dBc max. With test CW signal -10dBm IF output. (measured at specified IF band ; 950 to 1,450 MHz or 1,700MHz) |



| Item | Specifications |
|-----------------------------|--|
| Power Requirement | +15 to +24Vdc / Option: +12 to +15 Vdc |
| Power Consumption | 400 mA max. |
| Operating Temperature Range | -40 to +60 °C |
| Storage Temperature Range | -40 to +80 °C |

<Outline Drawing>



Unit: mm



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