



External Reference Type Palapa C-band PLL LNB

MODEL NO. NJS8476E / EN

External Reference Type C-band PLL LNB

MODEL NO. NJS8477E / EN

External Reference Type Insat C-band PLL LNB

MODEL NO. NJS8478E / EN

<Description>

This specification defines the Low Noise Amplifier and block downconverter intended for the satellite data communication downlink and VSAT system application in 3.400 to 4.200 GHz / Palapa C-band, 3.625 to 4.200 GHz / C-band and 4.500 to 4.800 GHz / Insat C-band. These LNBs have a combined 3-stage HEMT amplifier and block downconverter with Phase Locked Local Oscillator, which is constituted with a S-band VCO, Multiplier, 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>

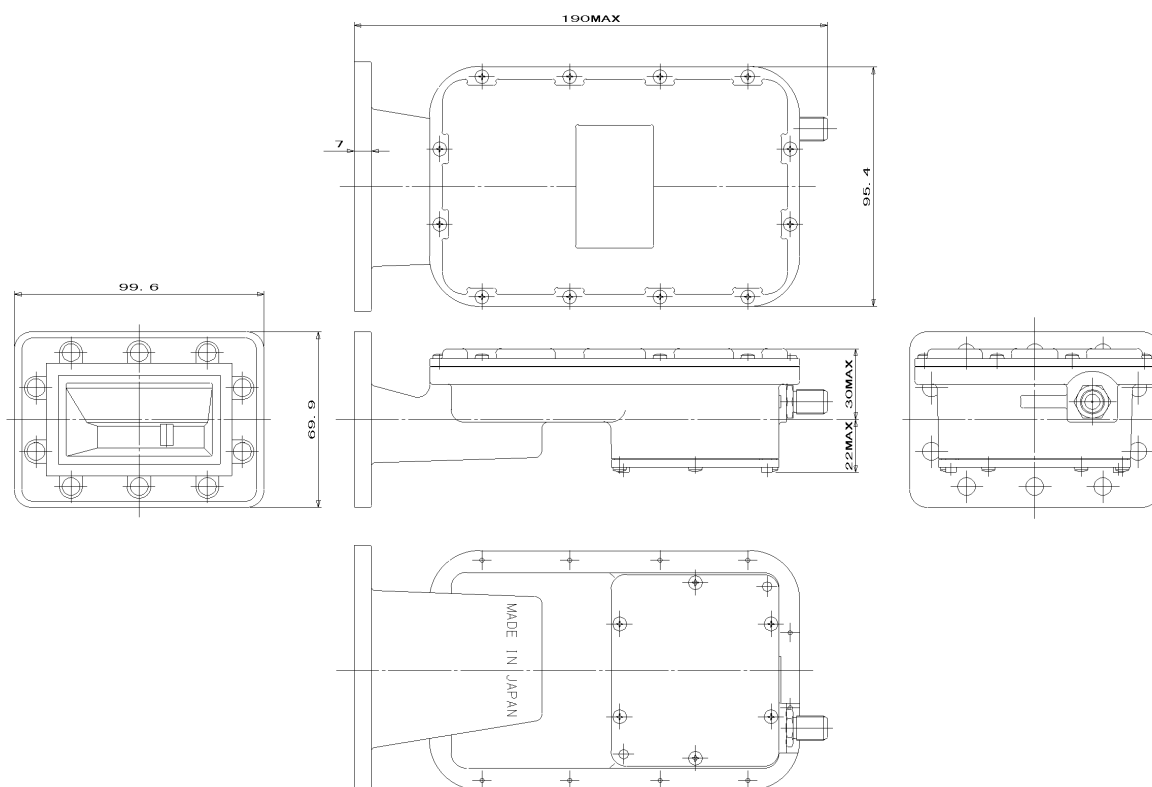
Model No.	RF Frequency	Local Frequency	Local Stability	IF Frequency	Application
NJS8476E / EN	3.400 to 4.200 GHz	5.15 GHz	Depends on external reference	950 to 1,750 MHz	Palapa
NJS8477E / EN	3.625 to 4.200 GHz	5.15 GHz		950 to 1,525 MHz	Standard
NJS8478E / EN	4.500 to 4.800 GHz	5.76 GHz		960 to 1,260 MHz	Insat

<Specifications>

Item	Specifications
Input Waveguide Flange	CPR-229
Output Connector	Type F-female (75 ohm) (NJS8476E / 77E / 78E) Type N-female (50 ohm) (NJS8476EN / 77EN / 78EN)
Noise Temperature (at 25 °C)	35 K
Conversion Gain (at 25 °C)	59 dB min.
Conversion Gain Variation (at 25 °C)	5 dB max. (NJS8477E / 78E) 8 dB max. (NJS8476E)
Local Oscillator Frequency Stability	NJS8476E / EN : 5.15 GHz NJS8477E / EN : 5.15 GHz NJS8478E / EN : 5.76 GHz
Phase Noise (SSB)	-65 dBc/Hz at 100 Hz -75 dBc/Hz at 1 kHz -85 dBc/Hz at 10 kHz -90 dBc/Hz at 100 kHz *Depends on phase noise of external reference
External Reference Input Frequency	10 MHz
External Reference Input Power	-10 to 0 dBm (75 ohm 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 100 Hz -143 dBc/Hz at 1 KHz -145 dBc/Hz at 10 kHz (Input Condition)

Item	Specifications
Spurious	-140 dBm max. At input, fixed frequency spur, unrelated to test CW signal. -55 dBc max. With test CW signal -10 dBm IF output (Measured at specified IF band ; 950 to 1,750 MHz or 950 to 1,525 MHz or 960 to 1,260 MHz)
Power Requirement	+13.5 to +24V DC
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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