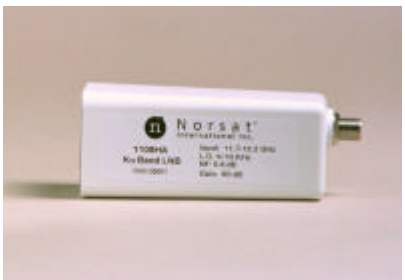
Norsat International Inc.

Data – Pro Ku-Band PLL LNB 1000H Series

LNB



The Norsat 1000H Series LNB offers better PLL Stability and Phase Noise in a compact package.

The 1000H Series LNB is designed to provide commercial quality for VSAT and select digital applications such as:

- Low data rate digital video
- A reference LNB for Receiver test & service
- SCPC digital or analog audio
- Low speed SCPC data from 19.2 kbps – 512 Kbps, or any higher data rate

How to Order a 1000H Series LNB

1 1 0 8 H A N

- **N** – Connector: F - 75 Ohm; N - 50 Ohm
- **A** – Frequency: A – 11.70 to 12.20 GHz; B – 12.25 to 12.75 GHz; C – 10.95 to 11.70 GHz
- **H** – Noise Figure: 07 – 0.7 dB; 08 – 0.8 dB; 09 – 0.9 dB
- **8** – LO Stability: 1 – ±10 kHz; 2 – ±25 kHz; 5 – ±5 kHz
- **0** – LNB Series #

Ku PLL Series

Best ● 1000X

Better ● 1000H

Good ● 1000L

Norsat Advantages

- Norsat LNBs are graded by Stability and Noise Figure to provide the perfect balance between performance and cost
- Compact to fit in smaller enclosures, reducing wind profile
- Proven reliability for lower lifetime costs
- Better PLL LO stability to control receiver drift and employ lower bit rates or a narrower space segment
- Excellent Phase Noise to lower Carrier to Signal Noise margins, improving BER
- Built-in transmitter interference filter for compact installations and lower costs

Norsat Ku-Band PLL LNB Product Line:

	1000L	1000H	1000X
Noise Figure	0.8dB to 1.0 dB	0.7dB to 0.9 dB	0.9dB to 1.2 dB
Input VSWR	2.2:1	2.2:1	2.2:1
LO Stability	±75 to ±100 kHz	±5 to ±25 kHz	External reference
Phase Noise	-75dBc/Hz @ 1kHz	-75dBc/Hz @ 1kHz	-75dBc/Hz @ 1kHz
Output Connector	F or N	F or N	For N

Norsat 1000H Series Specifications

Electrical Specifications

RF Input Frequency

- 1000HA: 11.70 to 12.20 GHz
- 1000HB: 12.25 to 12.75 GHz
- 1000HC: 10.95 to 11.70 GHz

Input VSWR

- 2.2 : 1 max

IF Output Frequency

- 1000HA: 950 to 1450 MHz
- 1000HB: 950 to 1450 MHz
- 1000HC: 950 to 1700 MHz

Output VSWR

- N-Connector: 2.2 : 1 maximum, 50 Ohms
- F-Connector: 2.2 : 1 maximum, 75 Ohms

Gain

- 55 dB minimum
- 70 dB maximum, 60 dB typical

Gain Stability

- 6 dB p-p maximum, 3 dB typical over temperature and frequency

Gain Flatness

- 1.5 dB p-p maximum per 27 MHz segment

1 dB Gain Compression Point

- +7 dBm minimum

Noise Figure

- 0.7 to 0.9 dB depending on model number

Image Rejection

- 45 dB minimum, 60 dB typical

Local Oscillator Frequency

- 1000HA: 10.75 GHz
- 1000HB: 11.30 GHz
- 1000HC: 10.00 GHz

Local Oscillator Stability

- ±5 kHz to ±25 kHz depending on model number

Local Oscillator Leakage

- -45 dBm maximum measured at waveguide input

Mechanical Specifications

Input Interface

- WR-75 Waterproof (Mated with matching flange and O-ring)

Output Interface

- F-Type, 75 Ohm, Female Waterproof
- N-Type, 50 Ohm, Female Waterproof

Size

- 100 (L) x 42 (W) x 42 (H) mm
- 3.9 x 1.7 x 1.7 in

Weight

- 300g / 10.6 oz maximum

Paint / Color

- White, Plastic Shell

Environmental Specifications

Operating Temperature

- -40 to +60 degrees Celsius

Thermal Gradient

- -40 degrees Celsius/Hour

Relative Humidity

- 15% to 100% condensation and frost

Power Requirements

Input DC Voltage

- +15 to +24 V supplied through center conductor of IF cable

Current Drain

- 200 mA maximum, 150 mA typical