



**Norsat**<sup>®</sup>  
International Inc.

# Data – Pro Ku-Band PLL LNB 1000H Series

# LNB

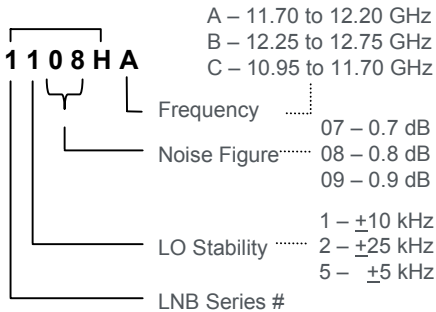


**The Norsat 1000H Series LNB offers better PLL Stability and Phase Noise in a compact package.**

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



## 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 enclosure, reduce wind profile
- Proven reliability for lower lifetime costs
- Better PLL LO stability to control receiver drift and employ lower bit rates or 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

## Ku PLL Series



## Norsat Ku-band PLL LNB Product Line

	1000L	1000H	1000X
Noise Figure	0.8dB to 1.0dB	0.7dB to 0.9dB	0.9dB to 1.2dB
Input VSWR	2.2:1	2.2:1	2.2:1
LO Stability	$\pm 75$ to $\pm 100$ kHz	$\pm 5$ to $\pm 25$ kHz	External reference
Phase Noise	-75dBc/Hz @ 1kHz	-75dBc/Hz @ 1kHz	-75dBc/Hz @ 1kHz

**Corporate Information** For additional information or details on Norsat's product offering, please contact us at:

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# Norsat LNB 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

- 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

### 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

- $\pm 5$  kHz to  $\pm 25$  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

### 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 / Colour

- 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 centre conductor of IF cable

### Current Drain

- 200 mA maximum, 150 mA typical

1000H Series Typical Phase Noise

