

## Digital Ku-Band DRO LNB 4000 Series

# LNB

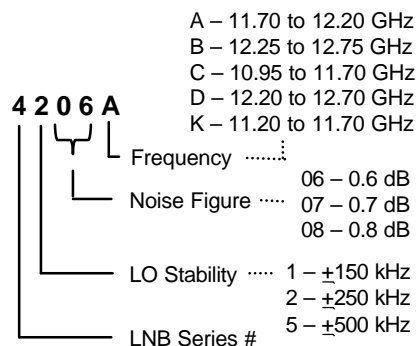


**Norsat's 4000 Series LNB offers a built-in transmitter filter, and the best DRO Stability and Phase Noise in a compact package.**

The 4000 Series is designed to provide higher performance for VSAT and select digital applications such as:

- Higher data rate digital video or commercial analog
- SCPC digital or analog audio applications
- Any SCPC data rate above 1 Mbps

### How to Order a 4000 Series LNB



### Ku DRO Series



### 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
- Best DRO LO stability to control receiver drift and employ lower bit rates or narrower space segment
- Excellent Phase Noise to lower Carrier to Noise margins, improving BER
- Superior microphonics
- Built-in transmitter interference filter for compact installations and lower costs

### Norsat Ku-Band DRO LNB Product Line

	7000	2000	4000
Noise Figure	0.6dB to 0.8 dB	0.7dB to 1.0 dB	0.6dB to 0.8 dB
Input VSWR	2.5:1	3.5:1	2.5:1
LO Stability	$\pm 750$ to $\pm 900$ kHz	$\pm 500$ to $\pm 900$ kHz	$\pm 150$ to $\pm 500$ kHz
Phase Noise	-55dBc/Hz @ 1kHz	-55dBc/Hz @ 1kHz	-65dBc/Hz @ 1kHz

# Norsat 4000 Series Specifications

## Electrical Specifications

### RF Input Frequency

- 4000A: 11.70 to 12.20 GHz
- 4000B: 12.25 to 12.75 GHz
- 4000C: 10.95 to 11.70 GHz
- 4000D: 12.20 to 12.70 GHz
- 4000K: 11.20 to 11.70 GHz

### Input VSWR

- 2.5 : 1 maximum

### IF Output Frequency

- 4000A: 950 to 1450 MHz
- 4000B: 950 to 1450 MHz
- 4000C: 950 to 1700 MHz
- 4000D: 950 to 1450 MHz
- 4000K: 950 to 1450 MHz

### Output VSWR

- 2.5 : 1 maximum, 75 Ohms

### Gain

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

### Gain Stability

- 4 dB p-p maximum, 6 dB maximum over temperature and frequency

### Gain Flatness

- 1 dB p-p maximum per 27 MHz segment

### 1 dB Gain Compression Point

- +8 dBm minimum

### Noise Figure

- 0.6 to 0.8 dB depending on model number

### Image Rejection

- 45 dB minimum

### Transmitter interference rejection

- Gain: 1.0 dB max. change with -10 dBm input @ 14 GHz to 14.5 GHz
- NF: 0.2 dB max. change with -10 dBm input @ 14 GHz to 14.5 GHz

### Local Oscillator Frequency

- 4000A: 10.75 GHz
- 4000B: 11.30 GHz
- 4000C: 10.00 GHz
- 4000D: 11.25 GHz
- 4000K: 10.25 GHz

### Local Oscillator Stability

- $\pm 150$  kHz to  $\pm 500$  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

- 84 (L) x 41 (W) x 41 (H) mm
- 3.3 x 1.6 x 1.6 in

### Weight

- 120g / 4.2 oz

### Paint / Color

- White, Plastic Shell

## Environmental Specifications

### Operating Temperature

- -40 to +60 degrees Celsius

### Thermal Gradient

- -40 degrees Celsius/Hour

### Relative Humidity

- Up to 100% condensation and frost

## Power Requirements

### Input DC Voltage

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

### Current Drain

- 120 mA maximum

