

# Intellian Global PLL LNB

**Intellian Global PLL LNB** is the world's first and only Ku-band VSAT PLL LNB that is capable of receiving a full range of operating frequencies from any satellite around the globe to provide users a seamless and uninterrupted satellite communication service by eliminating the need to swap the LNB manually inside the antenna dome.

The Global PLL LNB is a complete turnkey solution designed for simplicity which incorporates user programmable support of an unlimited number of LO (Local Oscillator) frequencies as well as allows the user to define the required LO frequency (up to Quad band), or select from a pre-programmed LO library. The set up procedure can also be handled from a remote IP access at any time and any location.

Designed and manufactured by Intellian engineers specifically for marine VSAT, the Global PLL LNB is fine tuned for the Intellian VSAT product line to enhance overall system performance. With the highest frequency stability of  $\pm 10\text{KHz}$  (1 ppm) as standard, the units have been tested by Intellian's rigorous and extensive in-house testing program to guarantee exceptional accuracy and ensure that the Global PLL LNB offers superb performance and long term reliability.



## Technical Specifications

Physical	
Part No.	V1-1205_A
RF Frequency	10.7 ~ 12.75 GHz Ku-band
LO Stability (over temp.*)	$\pm 10\text{ kHz}$ ( $\pm 1\text{ ppm}$ )
LO Phase Noise typ.	-74 dBc @ 1 kHz -79 dBc @ 10 kHz -100 dBc @ 100 kHz -125 dBc @ >1 MHz
Standard LO Frequency*	9.75 ~ 11.3 GHz
Standard IF Frequency	(950-1450, 950-1700 and 950-2150 MHz) will be specified from the chosen LO.
Gain typ.	58 dB Typ. (62 dB max, 54 dB min.)
Gain Variation within 30 MHz max	$\pm 0.5\text{ dB}$
Gain Variation max	$\pm 4\text{ dB}$
Noise Figure typ.	typ. 0.55dB
LO Radiation	max. -40dBm
P1dB typ.	+10dBm min.
IP3 typ.	+25 dBm
Input	WR-75 waveguide
Output	F-connector 75 ohm
Input VSWR	2.7 : 1 typ.
Output VSWR	2.5 : 1 max
Current	max 380mA
Operating Temperature	-30 to +60°C
Storage Temperature	-40 to +80°C
Dimensions	113 mm (Including F-connector) x 53 mm x 29.1 mm
Weight	230 g (F-connector)

\* Standard LO Frequency is programmable according to customer's needs and requirements.

## Key Features

- Specially designed for marine VSAT antennas
- Supports global operations and any Ku-band service network
- User programmable support for an unlimited number of LO frequencies
- Capable of substituting any type of PLL LNBs (1, 2, 3, or 4-band) on the market
- Offers the highest frequency stability of  $\pm 10\text{KHz}$  (1ppm) as standard

# Intellian

**Global HQ**  
Innovation Center / Factory  
Intellian Technologies, Inc.  
T +82 31 379 1000  
F +82 31 377 6185

**APAC**  
Seoul Office  
Intellian Technologies, Inc.  
T +82 2 511 2244  
F +82 2 511 2235

**Americas**  
Irvine Office  
Intellian Technologies USA, Inc.  
T +1 949 727 4498  
F +1 949 271 4183  
Toll Free +1 888-201-9223

**EMEA**  
Rotterdam Office  
Intellian B.V.  
T +31 1 0820 8655  
F +31 1 0820 8656