



Professional Ka-Band PLL LNB with Low Phase Noise



The Ka-Band PLL LNB is a single-band LNB that covers the wide frequency range 17.3-22.2 GHz with several sub bands and LO frequencies.

The LNB features Low Phase Noise to meet the DVB-S2X Professional services profile.

The LNB has a compact size and light weight. It is designed for reliable operation over a high temperature range for installation in various outdoor environments or build-in applications. Options include customized LO, customized gain, separate DC power input and separate input for the external 10 MHz reference.

Features

- Frequency range 17.3-22.2 GHz
- Several LO frequencies available
- Choose between Internal Ref. or External Ref. input models
- Ultra Low Phase Noise
- High P1dB and IP3
- Compact size and light weight
- Wide operating temperature range

TECHNICAL SPECIFICATIONS

MODEL:	16.35	16.75	17.20	17.25	18.20	18.25	18.75	19.20	19.25	20.20	20.25	20.45
Input Frequency	17.30-18.30 GHz	17.70-18.70 GHz	18.20-19.20 GHz	18.20-19.20 GHz	19.20-20.20 GHz	19.20-20.20 GHz	19.70-20.20 GHz	20.20-21.20 GHz	20.20-21.20 GHz	21.20-22.20 GHz	21.20-22.20 GHz	21.40-22.20 GHz
LO Frequency	16.35 GHz	16.75 GHz	17.20 GHz	17.25 GHz	18.20 GHz	18.25 GHz	18.75 GHz	19.20 GHz	19.25 GHz	20.20 GHz	20.25 GHz	20.45 GHz
Output Frequency	950-1950 MHz	950-1950 MHz	1000-2000 MHz	950-1950 MHz	1000-2000 MHz	950-1950 MHz	950-1450 MHz	1000-2000 MHz	950-1950 MHz	1000-2000 MHz	950-1950 MHz	950-1700 MHz
Gain	60 dB typ. (55 dB min.)											
Flatness	±0.4 dB max. within 30 MHz ±2 dB max.											
Noise Figure / Noise Temperature	1.3 dB / 101 K typ.									1.5 dB / 120 K typ.		
Phase Noise	-40 dBc @ 10 Hz -65 dBc @ 100 Hz -85 dBc @ 1 kHz -90 dBc @ 10 kHz -95 dBc @ 100 kHz -112 dBc @ ≥1 MHz typ.											
Image Rejection	30 dB min.											
Output P1dB	+15 dBm typ.											
Output IP3	+25 dBm typ.											
Output VSWR	2.1:1 typ.											
Output Connector	F-type 75Ω / N-type 50Ω Option SMA-type 50Ω											
Input Waveguide	WR 42 / R 220. Flange PBR 220.											
Input VSWR	2.3:1 typ.											
LO Leakage	-60 dBm @ waveguide input											
Internal Ref. Stability	±1 ppm -40 to +60°C (±1.5 ppm -40 to +80°C) / ±2.5 ppm -40 to +60°C (±3.5 ppm -40 to +80°C)											
External 10 MHz ref.	Level: -15 to +5 dBm. Supplied through output connector (with no ext. 10 MHz ref. present LO shifts -20 ppm)											
DC Input	+12 to +24 V (LO ≥18.75 GHz +13 to +24 V) Supplied through output connector											
Power Consumption	5 W typ.											
Temperature Range	-40 to +80°C											
Dimensions	121 x 56 x 44 mm (F- & SMA-connector) 127 x 56 x 44 mm (N-connector) (for drawing, see www.smw.se)											
Weight	326 g (F- & SMA-connector) 345 g (N-connector)											
Miscellaneous	Enclosed O-ring, mounting screws (M3 x 8) 4pcs.											
Options	Customized LO, gain & variation, Separate DC input, Separate 10 MHz ref. input, Waveguide Isolator (input VSWR 1.4:1 max), Separate DC input connector F-, N- or SMA-type, Fiber output (Q-ODC)											