

# 2-Band PLL LNB

Professional  
2-Band  
Switchable PLL LNB



**NEW!**



The Ka-Band PLL LNB is a family of 2-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 meets all profiles of DVB-S2X.

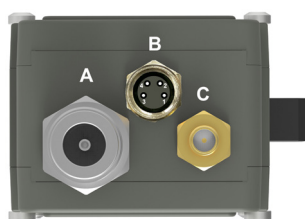
## Features

- **NEW!** Optional Alarm output and M&C interface
- Auto switching LO ref: Internal / Ext. 10 MHz
- Frequency range 17.30-22.20 GHz
- Several LO frequencies available
- Low Phase Noise
- High P1dB and IP3
- Compact size and light weight
- Wide operating temperature range

## TECHNICAL SPECIFICATIONS

MODEL:	16.80 / 17.40	17.20 / 18.20	17.25 / 18.25	17.45 / 18.25	18.20 / 19.20	18.25 / 19.25	19.20 / 20.20	19.25 / 20.25
Input Freq. Band 1	17.75 - 18.75 GHz	18.20 - 19.20 GHz	18.20 - 19.20 GHz	18.40 - 19.20 GHz	19.20 - 20.20 GHz	19.20 - 20.20 GHz	20.20 - 21.20 GHz	20.20 - 21.20 GHz
Input Freq. Band 2	18.35 - 19.35 GHz	19.20 - 20.20 GHz	19.20 - 20.20 GHz	19.20 - 20.20 GHz	20.20 - 21.20 GHz	20.20 - 21.20 GHz	21.20 - 22.20 GHz	21.20 - 22.20 GHz
LO Frequency	16.80 / 17.40 GHz	17.20 / 18.20 GHz	17.25 / 18.25 GHz	17.45 / 18.25 GHz	18.20 / 19.20 GHz	18.25 / 19.25 GHz	19.20 / 20.20 GHz	19.25 / 20.25 GHz
Output Freq. Band 1	950 - 1950 MHz	1000 - 2000 MHz	950 - 1950 MHz	950 - 1750 MHz	1000 - 2000 MHz	950 - 1950 MHz	1000 - 2000 MHz	950 - 1950 MHz
Output Freq. Band 2	950 - 1950 MHz	1000 - 2000 MHz	950 - 1950 MHz	950 - 1950 MHz	1000 - 2000 MHz	950 - 1950 MHz	1000 - 2000 MHz	950 - 1950 MHz
Switching Voltage	Band 1: 13 V (11.0 - 14.9 V) Band 2: 18 V (15.2 - 26.0 V)							
Gain	60 dB typ. 55 dB min.							
Flatness	±0.4 dB max. within 30 MHz ±2 dB max. over each band							
Noise Figure / Noise Temperature	1.3 dB / 101 K typ.				1.4 dB / 110 K typ.		1.5 dB / 120 K typ.	
Phase Noise	-35 dBc @ 10 Hz	-65 dBc @ 100 Hz	-80 dBc @ 1 kHz	-85 dBc @ 10 kHz	-95 dBc @ 100 kHz	-112 dBc @ ≥1 MHz typ.		
Image Rejection	30 dB min.							
Input Connector	WR 42 / R220. Flange PBR 220.							
Input VSWR	2.3:1 typ.						1.35:1 max. isolator included	
LO Leakage	-60 dBm @ RF input							
LO reference	Auto switch External / Internal							
Internal Ref. Stability	±2.5 ppm -40 to +60°C (±3.5 ppm -40 to +80°C)							
External 10 MHz Ref.	Sine wave, Level: -10 to +10 dBm. Supplied through output connector							
Output P1dB	+15 dBm typ.							
Output IP3	+25 dBm typ.							
Output VSWR	1.7:1 typ.							
Output Connector	F-type 75Ω / N-type 50Ω				Option SMA-type 50Ω			
DC Input	See switching voltage above							
Power Consumption	5 W max.							
Temperature Range	Storage and operating: -40 to +80°C							
Dimensions	121 x 56 x 46 mm (F- & SMA-connectors)				127 x 56 x 46 mm (N-connectors) ( for drawing, see <a href="http://www.smw.se">www.smw.se</a> )			
Weight	326 g (F- & SMA-connectors)				345 g (N-connectors)			
Optional Alarm	Interface: Separate M8-connector (B), Open collector, Open on fault, 3.3 to 24 V, max. 200 mA Available Alarms: LO not locked, Total current consumption, Power detector outside limits, RF level outside limits							
Optional M&C	Via MODBUS RTU RS485 electrical interface, see sep. document for details. NOTE! Mates with M8 male connector. Cable: shielded min. CAT 5							
Options	Customized LO, gain & variation, separate DC input, separate 10 MHz ref. input (SMA-f), Waveguide Isolator (input VSWR 1.35:1 max), Separate input for TTL switching, Alarm, M&C, Enclosure fixing points, Extended IF							
Miscellaneous	Enclosed conductive O-ring, mounting screws (M3 x 8) 4pcs.							

## LNB rear connectors



## Connector B (opt.)



- 1 = Alarm. open coll.
- 2 = A post+, RS485
- 3 = B neg-, RS485
- 4 = Common (GND)
- 5 = Shield

## Connector A (standard)

Type: N-f, (option F-f or SMA-f)  
Functions: L-Band out, DC in, External 10 MHz in

## Connector B (optional)

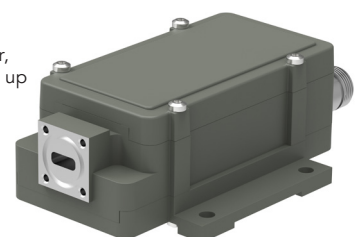
Type: M8 female, 4 pin, A coded  
Functions: Alarm and M&C

## Connector C (optional)

Type: SMA-f only  
Functions: Ext. 10 MHz in or DC input



Optional Low loss isolator, std for LO 20.20 GHz and up VSWR 1.35:1 max.



Optional enclosure fixing points

Rev.12-21-9M

Above parameters are generic product family values. For part number specific min./max. values, please consult us.

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