

## Single band PLL LNB



Professional LNB with  
Low Phase Noise

**NEW!**



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

### Features

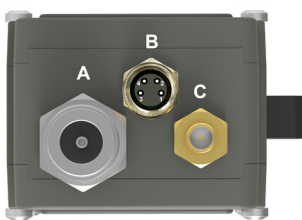
- **NEW!** Optional Alarm output and M&C interface
- Auto switching LO ref: Internal / Ext. 10 MHz
- Frequency range 17.30-22.20 GHz
- Several LO frequencies available
- Low Phase Noise
- High P1dB and IP3
- Compact size and light weight
- Wide operating temperature range

### TECHNICAL SPECIFICATIONS

MODEL:	16.35	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	19.70-20.70 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	950-1950 MHz	1000-2000 MHz	950-1950 MHz	1000-2000 MHz	950-1950 MHz	950-1700 MHz
Gain	60 dB typ. 55 dB min.											
Flatness	±1.5 dB max.											
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 Waveguide	WR 42 / R 220. Flange PBR 220.											
Input VSWR	2.3:1 typ.									1.35:1 max. isolator included		
LO Leakage	-60 dBm max. @ waveguide 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	N-f 50Ω standard, Option SMA-f 50Ω or F-f 75Ω											
DC Input	+11 to +26 V, supplied through output connector											
Power Consumption	5 W max.											
Temperature Range	Storage and operational: -40 to +80°C											
Dimensions	127x56x46 mm (N-connector, without Isolator), for other versions, please consult us.											
Weight	354 g (N-connector)											
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 & flatness, Separate DC input, Separate 10 MHz ref. input (SMA-f) Waveguide Isolator (input VSWR 1.35:1 max), Separate DC input connector (SMA-f), Alarm, M&C, Enclosure fixing points, Extended IF											
Miscellaneous	Enclosed conductive O-ring, mounting allen head screws (M3 x 8) 4pcs											

### LNB rear connectors

### Connector B (opt.)



- 1 = Alarm. open coll.
- 2 = A pos+, 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)

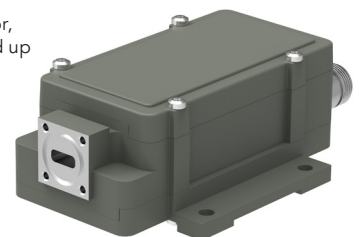
Type: M8 female, 4 pin, A coded  
Functions: Alarm and M&C

### 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

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

Specifications are subject to change without notice. Products from Swedish Microwave AB are made for commercial use.