



C-Band 2-Band PLL LNB

Professional 2-band C-Band PLL LNB with integrated filters



Swedish Microwaves 2-Band C-Band switchable PLL LNB has a unique design with integrated filters providing isolation from interfering signals (WiMAX etc.). The Low Phase Noise is compliant to DVB-S2X standard.

Options include customized LOs, customized gain, separate DC power input and separate input for the external 10 MHz reference.

Features

- Integrated filters
- Covers full C-Band in two sub-bands
- Low phase noise compliant to DVB-S2X
- High P1dB and IP3
- Choose between Internal Ref. or External Ref. input models
- Compact size and light weight
- Wide operating temperature range

TECHNICAL SPECIFICATIONS

MODEL:	C-PLL 5.15 / 5.75 D
Input Frequency, Band 1	3.400–4.200 GHz
Input Frequency, Band 2	4.200–4.800 GHz
LO Frequency	5.15 / 5.75 GHz
Output Frequency	1750 - 950 MHz
Output Frequency	1550 - 950 MHz
Switching voltage, Band 1	13 V (12.0-14.0 V)
Switching voltage, Band 2	18 V (16.0-18.0 V)
Filtering (internal) Provides isolation from interfering signals.	>40 dB @ <3.0 GHz 20 dB @ 3.2 GHz 25 dB @ 5.0 GHz >40 dB @ >5.1 GHz
Spurious @ RF output	max. -60dBm in band, max. -40 dBm out of band
Gain	60 dB typ., (55 dB min.)
Flatness (30 MHz)	±0.4 dB max.
Flatness (full band)	±2 dB max.
Noise Figure / Noise Temperature	0.69 dB / 50K
Phase Noise	-70 dBc @ 100 Hz -80 dBc @ 1 kHz -83 dBc @ 10 kHz -95 dBc @ 100 kHz -120 dBc @ ≥1MHz typ.
Image Rejection	40 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 229 / R 40, CPR 229G flange
Input VSWR	2.3:1 typical
LO Leakage	-60 dBm @ waveguide input min.
Internal Ref. Stability	±0.5 ppm -20 to +70°C (±1 ppm -40 to +80°C), ±1 ppm -20 to +70°C (±1.5 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 +18 V, 400 mA typ. Supplied through output connector
Temperature Range	-40 to +80°C
Dimensions	142 x 99 x 70 mm (F- & SMA-connector) 148 x 99 x 70 mm (N-connector) (for drawing, see www.smw.se)
Weight	380 g (F- & SMA-connector) 396 g (N-connector)
Options	Customized LO, gain & variation, Separate DC input connector F- N- or SMA-type, Separate 10 MHz ref. input.
Miscellaneous	Enclosed O-ring, mounting screws M6 x 25, washers and nuts 10 pcs.