

PLL-LNB with High IP3 +25 dBm



With Excellent Phase Noise

The PLL-LNB with High IP3 is mainly designed for applications receiving strong satellite signals in big dishes, but also in applications using a transmitter.

Except for the High IP3 +25 dBm the PLL has an excellent Phase Noise, Low Noise Figure and available either with F-, N- or SMA- output connector.

Available with an external 10 MHz reference, or with internal LO stability ± 10 or ± 25 kHz.

Options include Customized LO, Separate DC power input and Extended frequency range.

All our LNBs are individually hand tuned to get the very best performance available for each unit. Quality and long term reliability is also essential. Therefore are all LNBs tested according to a very extensive test program, which includes heating, cooling, water-proof testing and rigorous electrical testing.

Swedish Microwave (SMW) was founded 1986 and is today a leading manufacturer of professional LNBs (Low Noise Blockdownconverters) for the Ku-band market. The company is located in Motala Sweden, and to date the products are installed in more than 80 countries.

All work is in-house allowing custom-design products, short delivery times, high flexibility, quick service and support.

Specification SMW PLL-LNB High IP3 +25 dBm

SMW PLL-LNB	9.75 GHz	10.0 GHz	10.25 GHz	10.5 GHz
Frequency range	10.7 - 11.8 GHz	10.95 - 12.1 GHz	11.2 - 11.7 GHz	11.45 - 12.2 GHz
LO frequency	9.75 GHz	10.0 GHz	10.25 GHz	10.5 GHz
Output frequency	950 - 2050 MHz	950 - 2100 MHz	950 - 1450 MHz	950 - 1700 MHz

SMW PLL-LNB	10.6 GHz	10.678 GHz	10.75 GHz	11.2 GHz
Frequency range	11.7 - 12.75 GHz	11.7 - 12.0 GHz	11.7 - 12.75 GHz	12.2 - 12.75 GHz
LO frequency	10.6 GHz	10.678 GHz	10.75 GHz	11.2 GHz
Output frequency	1100 - 2150 MHz	1022 - 1322 MHz	950 - 2000 MHz	1000 - 1550 MHz

SMW PLL-LNB	11.25 GHz	11.3 GHz	11.475 GHz
Frequency range	12.2 - 12.75 GHz	12.25 - 12.75 GHz	12.5 - 12.75 GHz
LO frequency	11.25 GHz	11.3 GHz	11.475 GHz
Output frequency	950 - 1500 MHz	950 - 1450 MHz	1025 - 1275 MHz

LO stability*	±10, ±25 kHz or External 10 MHz reference (see leaflet PLL ext. 10MHz ref.)
Gain typ.	select between 54 and 60 dB
Gain variation within 30 MHz max.	±0.4 dB
Gain variation max.	±4 dB
Noise Figure, typical	0.8 dB
LO Phase noise typical	-75 dBc @ 1 kHz -85 dBc @ 10 kHz -100 dBc @ 100 kHz -120 dBc @ >1 MHz
LO radiation	-60 dBm
Image rejection	40 dB min
1 dB gain compression point	+15 dBm
IP3	+25 dBm
Input	WR-75 waveguide (R120)
Output (waterproof)	F-connector 75 ohm, N-connector 50 ohm or SMA-connector 50 ohm
Input VSWR	2.3:1 max
Output VSWR	2.1:1 max
DC power	12 - 24 V 270 mA typ.
Operating temperature	-40 to +80°C
Storage temperature	-40 to +80°C
Dimensions	122 (127 N) x 56 x 44 mm
Weight	329 g (F- & SMA-connector) 345 g (N-connector)

Options
Separate DC power input (F, N or SMA)
Customized gain and variation
Customized LO
SMA-input (via transition)
Extended frequency range

Enclosed accessories
O-ring
Screw M4 x 8 4 pcs

* ±10 kHz within -10° to +70°C
±25 kHz within -40° to +60°C

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