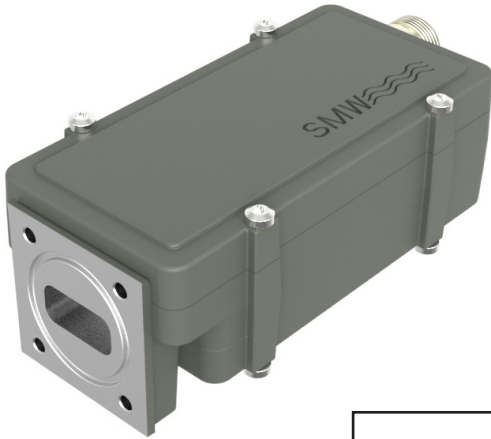


Multiband PLL LNB

Professional Multiband-LNB
Switchable 2-, 3- or 4-band



DVB-S2X[®]

The Professional Switchable Multiband Ku-Band PLL LNB is available either with Internal High LO Stability or with External 10 MHz reference.

Options include customized switching (e.g. 13/18/24 V), customized LO, customized gain, separate input connector for DC power and/or external 10 MHz reference.

The Multiband LNB is ideal for installation in e.g. maritime VSAT or SNG applications where change of Satellite Band is common.

Features

- Frequency range 10.70-12.75 GHz
- Several LO frequencies available
- LO switching by voltage and/or 22kHz
- Choose between Internal Ref. or External Ref. input models
- Low phase noise to meet the VSAT profile of DVB-S2X
- High P1dB and IP3
- Available as TWIN for H/V reception
- Low gain versions for larger antennas
- Wide operating temperature range

TECHNICAL SPECIFICATIONS

MODEL:	Ku-Band Multiband LNB
Input Frequency	10.70 - 12.75 GHz
LO Frequency	Max. 4 LO frequencies of following: 9.75 / 10.00 / 10.25 / 10.50 / 10.60 / 10.70 / 10.75 / 10.80 / 10.90 / 11.00 / 11.05 / 11.20 / 11.25 / 11.30 GHz
Output Frequency	950 - 2150 MHz
Gain	60dB typ., (55dB min.)
Flatness	±0.4 dB max. within 30 MHz, ±3 dB max. over band
Noise Figure / Noise Temperature	0.8 dB / 59 K typ.
Phase Noise	-35 dBc @ 10 Hz -62 dBc @ 100 Hz -75 dBc @ 1 kHz -83 dBc @ 10 kHz -93 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 75 / R 120. Flange PBR 120.
Input VSWR	2.3:1 typ., with optional isolator 1.25:1 max.
LO Leakage	-60 dBm @ waveguide input
MODELS with Internal Reference	±5 kHz -20 to +70°C (±10 kHz -40 to +80°C), ±10 kHz -20 to +70°C (±15 kHz -40 to +80°C)
MODELS with External 10 MHz Reference	Sine Wave, Level: -10 to +10 dBm. Supplied through output connector (with no ext. 10 MHz ref. present LO shifts -20 ppm)
DC Input	See separate table. Supplied through output connector
Current Drain	270 mA typ.
Temperature Range	Storage and operating: -40 to +80°C
Dimensions	122 x 57 x 46 mm (F- & SMA-connector), 128 x 57 x 46 mm (N-connector), for drawing, see www.smw.se
Weight	329 g (F- & SMA-connector), 345 g (N-connector)
Options	Customized LO frequency and frequency range. Lower gain and variation, Separate DC input connector F-, N- or SMA-type, Separate inputs for DC and 10 MHz ref., Pressurizable
Miscellaneous	Enclosed conductive O-ring, mounting screws (M4 x 10) 4 pcs.
SEE THE RF OVER FIBER AND L-BAND SECTIONS FOR OUTPUT OPTIONS	

cont. Multiband PLL LNB

2-BAND				
Type	Band	LO	Ku-band (GHz)	L-band (MHz)
A	1	10.00	10.95-11.70	950-1700
	2	11.00	11.95-12.75	950-1750
B	1	10.00	10.95-11.70	950-1700
	2	10.75	11.70-12.75	950-2000
C	1	9.75	10.70-11.70	950-1950
	2	10.75	11.70-12.75	950-2000
D	1	10.00	10.95-11.75	950-1750
	2	10.80	11.75-12.75	950-1950
E	1	9.75	10.70-11.70	950-1950
	2	10.60	11.70-12.75	1100-2150
G	1	10.00	10.95-11.70	950-1700
	2	11.30	12.25-12.75	950-1450
W	1	10.50	11.45-11.95	950-1450
	2	11.30	12.25-12.75	950-1450
Z	1	10.00	10.95-11.85	950-1850
	2	10.90	11.85-12.75	950-1850

SWITCHING			
Option	Band	Voltage	Tone
V	1	13 V	
	2	18 V	
T	1	12-20 V	
	2	12-20 V	22 kHz

DC Voltage tolerances	
Nominal Voltage	Tolerance
13 V	11.5 to 14.5 V
18 V	16.0 to 20.0 V

DC Voltage tolerances	
Nominal Voltage	Tolerance
13 V	11.5 to 17.5 V
24 V *)	18.0 to 26.0 V

22 kHz switching	
Tolerance	22 kHz ±4 kHz
Amplitude Voltage	600 mV ±200mV
Duty cycle	40 to 60 %

3-BAND				
Type	Band	LO	Ku-band (GHz)	L-band (MHz)
F	1	10.00	10.95-11.70	950-1700
	2	10.75	11.70-12.20	950-1450
	3	11.25	12.20-12.75	950-1500
H	1	10.00	10.95-11.70	950-1700
	2	10.75	11.70-12.25	950-1500
	3	11.30	12.25-12.75	950-1450
I	1	9.75	10.70-11.70	950-1950
	2	10.75	11.70-12.20	950-1450
	3	11.25	12.20-12.75	950-1500
J	1	10.00	10.95-11.70	950-1700
	2	10.60	11.55-12.25	950-1650
	3	11.05	12.00-12.75	950-1700
K	1	10.00	10.95-11.70	950-1700
	2	10.60	11.55-12.25	950-1650
	3	11.25	12.20-12.75	950-1500
L	1	9.75	10.70-11.80	950-2050
	2	10.00	10.95-12.10	950-2100
	3	10.60	11.70-12.75	1100-2150
S	1	9.75	10.70-11.70	950-1950
	2	10.60	11.70-12.70	1100-2100
	3	11.30	12.25-12.75	950-1450
U	1	9.75	10.70-11.45	950-1700
	2	10.50	11.45-12.20	950-1700
	3	11.25	12.20-12.75	950-1500
T	1	9.75	10.70-11.70	950-1950
	2	10.75	11.70-12.25	950-1500
	3	11.30	12.25-12.75	950-1450
Y	1	10.00	10.95-11.85	950-1850
	2	10.90	11.85-12.75	950-1850
	3	11.30	12.25-12.75	950-1450

SWITCHING			
Option	Band	Voltage	Tone
VT	1	13 V	
	2	13 V	22 kHz
	3	18 V	
V	1	13 V	
	2	15 V	
	3	18 V	
V 24V *)	1	13 V	
	2	18 V	
	3	24 V	

DC Voltage tolerances	
Nominal Voltage	Tolerance
13 V	11.5 to 13.9 V
15 V	14.2 to 16.3 V
18 V	16.6 to 20.0 V
24 V *)	20.3 to 26.0 V

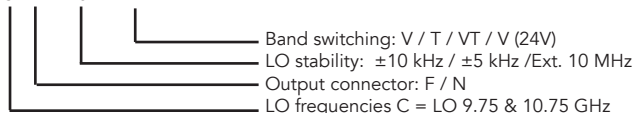
4-BAND				
Type	Band	LO	Ku-band (GHz)	L-band (MHz)
M	1	9.75	10.70-11.20	950-1450
	2	10.25	11.20-11.70	950-1450
	3	10.75	11.70-12.25	950-1500
	4	11.30	12.25-12.75	950-1450
N	1	9.75	10.70-10.95	950-1200
	2	10.00	10.95-11.70	950-1700
	3	10.75	11.70-12.25	950-1500
	4	11.30	12.25-12.75	950-1450
O	1	9.75	10.70-11.20	950-1450
	2	10.25	11.20-11.70	950-1450
	3	10.75	11.70-12.20	950-1450
	4	11.25	12.20-12.75	950-1500
P	1	10.00	10.95-11.45	950-1450
	2	10.50	11.45-11.95	950-1450
	3	10.75	11.70-12.20	950-1450
	4	11.25	12.20-12.75	950-1500
R	1	10.00	10.95-11.70	950-1700
	2	10.75	11.70-12.25	950-1500
	3	11.30	12.25-12.75	950-1450
	4	9.75	10.70-11.70	950-1950
V	1	9.75	10.70-11.50	950-1750
	2	10.00	10.95-11.75	950-1750
	3	10.50	11.45-12.25	950-1750
	4	11.05	12.00-12.80	950-1750

SWITCHING			
Option	Band	Voltage	Tone
VT	1	13 V	
	2	13 V	22 kHz
	3	18 V	
	4	18 V	22 kHz

DC Voltage tolerances	
Nominal Voltage	Tolerance
13 V	11.5 to 14.5 V
18 V	16.0 to 20.0 V

Ordering information:

Q-PLL type C F ±10 kHz V



*) Optional

Specifications are subject to change without notice. Products from Swedish Microwave AB are made for commercial use. Rev.08-21-4G