



Ku-Band Multiband LNB

Multiband PLL-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.

The remotely controlled band switching eliminates the need for changing the LNB.

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
- Compact size and light weight
- Wide operating temperature range

TECHNICAL SPECIFICATIONS

MODEL:	Ku-Band Multiband LNB, model 126238-VL					
Input Frequency	10.95 – 12.75 GHz					
LO Frequency	10.00 / 10.75 GHz					
Output Frequency	950 – 2000 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 typ.	-35 dBc @ 10 Hz	-62 dBc @ 100 Hz	-75 dBc @ 1 kHz	-83 dBc @ 10 kHz	-93 dBc @ 100 kHz	-120 dBc @ >1MHz
Image Rejection	40 dB min.					
Output P1dB	+15 dBm typ.					
Output IP3	+25 dBm typ.					
Output VSWR	2.1:1 typ.					
Output Connector	Option SMA-type 50Ω					
Input Waveguide	WR 75 / R 120. Flange PBR 120.					
Input VSWR	2.3:1 typ.					
LO Leakage	-60 dBm @ waveguide input					
Internal Ref. Stability	±5 kHz -20 to +70°C (±10 kHz -40 to +80°C) ±10 kHz -20 to +70°C (±15 kHz -40 to +80°C) ±25 kHz -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	Type B, 13/18 Volt. See separate table. Supplied through output connector					
Current Drain	270 mA typ.					
Temperature Range	-40 to +80°C					
Dimensions	122 x 56 x 44 mm (F- & SMA-connector) 127 x 56 x 44 mm (N-connector)					
Weight	max. 260 g SMA-connector					
Options	Customized LO frequency and frequency range. Gain and variation, Separate DC input connector F-, N- or SMA-type, Separate inputs for DC and 10 MHz ref.					
Miscellaneous	Enclosed O-ring, mounting screws (M4 x 10) 4 pcs.					



Ku-Band Multiband LNB cont.

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	
DC Power 11.5 to 20.0 (26.0) V	
Nominal Voltage	Tolerance
13 V	11.5 to 14.5 V
18 V	16.0 to 20.0 V

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	
DC Power 11.5 to 20.0 (26.0) V	
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	
DC Power 11.5 to 20.0 V	
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 ± 25 kHz V

Band switching: V / T / VT / V (24V)
LO stability: ± 25 kHz / ± 10 kHz / ± 5 kHz / ext. 10 MHz
Output connector: F / N
LO frequencies C = LO 9.75 & 10.75 GHz

*) Optional