

Multiband (2-, 3- or 4-band)



Comes either with internal high LO stability or with external 10 MHz reference.
13/18 V and no tone/22 kHz are the standard switching.

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

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 was founded 1986 and is today a leading manufacturer of professional LNBs (Low Noise Block converters). The company is located in Motala Sweden, and to date the products are installed in more than 100 countries.

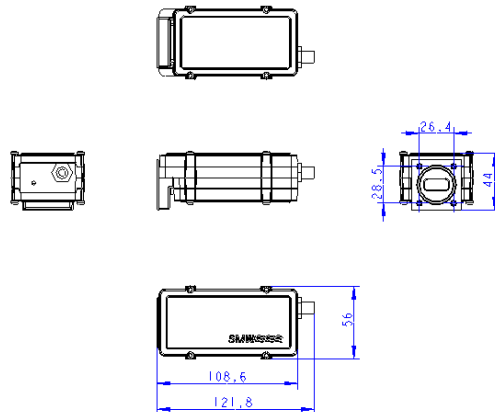
All work is in-house allowing custom-design products, short delivery times, high flexibility, quick service and support.

SPECIFICATION SMW Q-PLL LNB (Multiband)

Frequency range	10.70 - 12.75 GHz	
Standard LO frequencies (max. 4)	9.75, 10.0, 10.25, 10.5, 10.6, 10.7, 10.75, 10.8, 11.0, 11.05, 11.2, 11.25 and 11.3 GHz	
Standard IF Frequency	depend on the LO's (950-1450 MHz to 950-2150 MHz)	
LO stability	Internal reference ±10 kHz* or ±25 kHz	LO stability Depend on the external reference
LO Phase noise typical	-75 dBc @ 1 kHz -78 dBc @ 10 kHz -90 dBc @ 100 kHz -120 dBc @ >1 MHz	External reference input frequency External reference input power External reference input port
Switching 2-band Voltage (V)	Band 1 11.5 - 14.0 V, No Tone Band 2 16.0 - 19.0 V, No Tone	LO Phase noise typical -70 dBc @ 10 Hz -70 dBc @ 100 Hz -75 dBc @ 1 kHz -78 dBc @ 10 kHz -90 dBc @ 100 kHz
Switching 2-band Tone (T)	Band 1 No Tone, 11.5 - 20.0 V, Band 2 Tone 22 kHz, 11.5 - 20.0 V	External Reference Phase noise -135 dBc @ 100 Hz -143 dBc @ 1 kHz -145 dBc @ 10 kHz
Switching 3-band Voltage (V) option 13/18/24 V (see below)	Band 1 11.5 - 13.7 V, No Tone Band 2 13.9 - 16.8 V, No Tone Band 3 17.0 - 19.0 V, No Tone	Switching 2-band Voltage (V) Band 1 11.5 - 14.0 V, No Tone Band 2 16.0 - 19.0 V, No Tone
Switching 3-band Voltage (V) and Tone (T)	Band 1 11.5 - 14.0 V, No Tone Band 2 11.5 - 14.0 V, Tone 22 kHz Band 3 16.0 - 19.0 V, No Tone	Switching 2-band Tone (T) (ext. 10 MHz ref. via sep. input connector)
Switching 4-band Voltage (V) and Tone (T)	Band 1 11.5 - 14.0 V, No Tone Band 2 11.5 - 14.0 V, Tone 22 kHz Band 3 16.0 - 19.0 V, No Tone Band 4 16.0 - 19.0 V, Tone 22 kHz	Switching 3-band Voltage (V) Option 13/18/24 V (see Options)
General		Switching 3-band Voltage (V) and Tone (T) (ext. 10 MHz ref. via sep. input connector)
Gain typ.	58 dB typ. (53 dB min.)	Band 1 11.5 - 14.0 V, No Tone Band 2 11.5 - 14.0 V, Tone 22 kHz Band 3 16.0 - 19.0 V, No Tone
Gain variation within 30 MHz max.	±0.4 dB	Switching 4-band Voltage (V) and Tone (T) (ext. 10 MHz ref. via sep. input connector)
Gain variation max.	±4 dB	Band 1 11.5 - 14.0 V, No Tone Band 2 11.5 - 14.0 V, Tone 22 kHz Band 3 16.0 - 19.0 V, No Tone Band 4 16.0 - 19.0 V, Tone 22 kHz
Noise Figure, typical	0.8 dB	
LO radiation	-60 dBm	
Image rejection	40 dB min	
1 dB gain compression point typical	+15 dBm	
IP 3 typical	+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	
Current	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)	
Specification Tone Switching		
Switching	No tone/22 kHz ±4 kHz	
Amplitude voltage	0.6 ±0.2 V	
Duty cycle	40-60%	
Options	Voltage switching 13/18/24 V (240/190/150 mA typ.) Separate DC power input (F, N or SMA) Customized gain and variation Customized LOs Extended frequency range Separate input connector for the ext. 10 MHz ref. SMA-input (via transition)	
Enclosed accessories	O-ring Screw M4 x 8 4 pcs	
* ±25 kHz within -30° to +60°C ±10 kHz within -10° to +70°C		

How to order Q-PLL Ku-band (if you can't find what you need please ask for a quote)

Q-PLL type	C F ±25 kHz (V)
	Voltage-switching Tone-switching VT - Voltage + Tone-switching
	±25 kHz ±10 kHz ext. 10 MHz ref.
	F-Connector 75 ohm N-Connector 50 ohm SMA-Connector 50 ohm
	A - LO 10.00/11.00 GHz B - LO 10.00/10.75 GHz C - LO 9.75/10.75 GHz E - LO 9.75/10.60 GHz G - LO 10.00/11.30 GHz H - LO 10.00/10.75/11.30 GHz I - LO 9.75/10.75/11.25 GHz J - LO 10.00/10.60/11.05 GHz K - LO 10.00/10.60/11.25 GHz L - LO 9.75/10.00/10.60 GHz M - LO 9.75/10.25/10.75/11.30 GHz N - LO 9.75/10.00/10.75/11.30 GHz O - LO 9.75/10.25/10.75/11.25 GHz P - LO 10.00/10.50/10.75/11.25 GHz R - LO 10.00/10.75/11.30/9.75 GHz S - LO 9.75/10.60/11.30 GHz T - LO 9.75/10.75/11.30 GHz U - LO 9.75/10.50/11.25 GHz V - LO 9.75/10.50/11.05/10.00 GHz Y - LO 9.75/10.50/11.30 GHz



Specifications are subject to change without notice. General terms Orgalime S 2000. Products from Swedish Microwave AB are made for commercial use. 2010-08-24