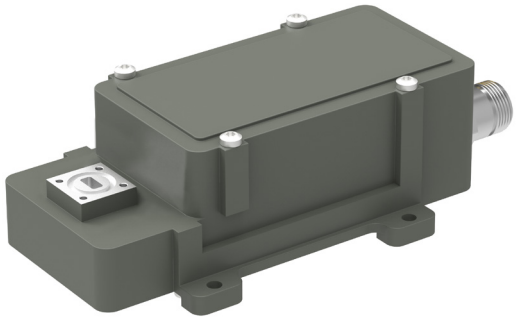
Q LNB 37.50 - 42.50 GHz 2-5 Band

Key features



- Input frequency range 37.50 to 42.50 GHz
- External reference with fallback to Internal ref.
- Low phase noise and noise figure
- Switchable LO frequency
- Standard IF frequency output
- Monitoring & Control interface as standard
- Automatic temperature Gain compensation

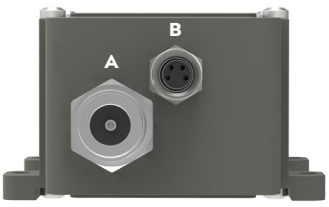
M&C monitoring and control interface

Description

The Q-Band LNB of the future, today. Packed full of our latest technology, our device provides coverage within the full Q-Band satcom downlink frequency range in one unit.

Standard features include Monitoring and Control via Modbus allowing a multitude of unique field configurable features and functions making this device both versatile and future proof.

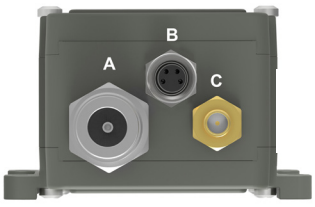
LNB connectors (standard)



Connector A (standard)
Type: N-female, or SMA-female
Functions: L-Band out, DC in, External ref. in

Connector B (standard)
Type: M8 female, 4 pin, A-coded
Functions: Alarm and M&C

LNB connectors (optional)



Connector C (optional)
Type: SMA-female only
Functions: Ext. ref. in and/or DC input

Connector B (standard)

1 = Alarm open collector (max. 200 mA) or optionally DC input.
2 = A pos+ RS485
3 = B neg- RS485
4 = Common (GND)
5 = Shield

Explore our full product range in this category

Swedish Microwave AB | Dynamovagen 5 | S-591 61 Motala | Sweden | Contact: +46 141 21 61 35 | sales@smw.se | smw.se

Q LNB 37.50 - 42.50 GHz 2-5 Band

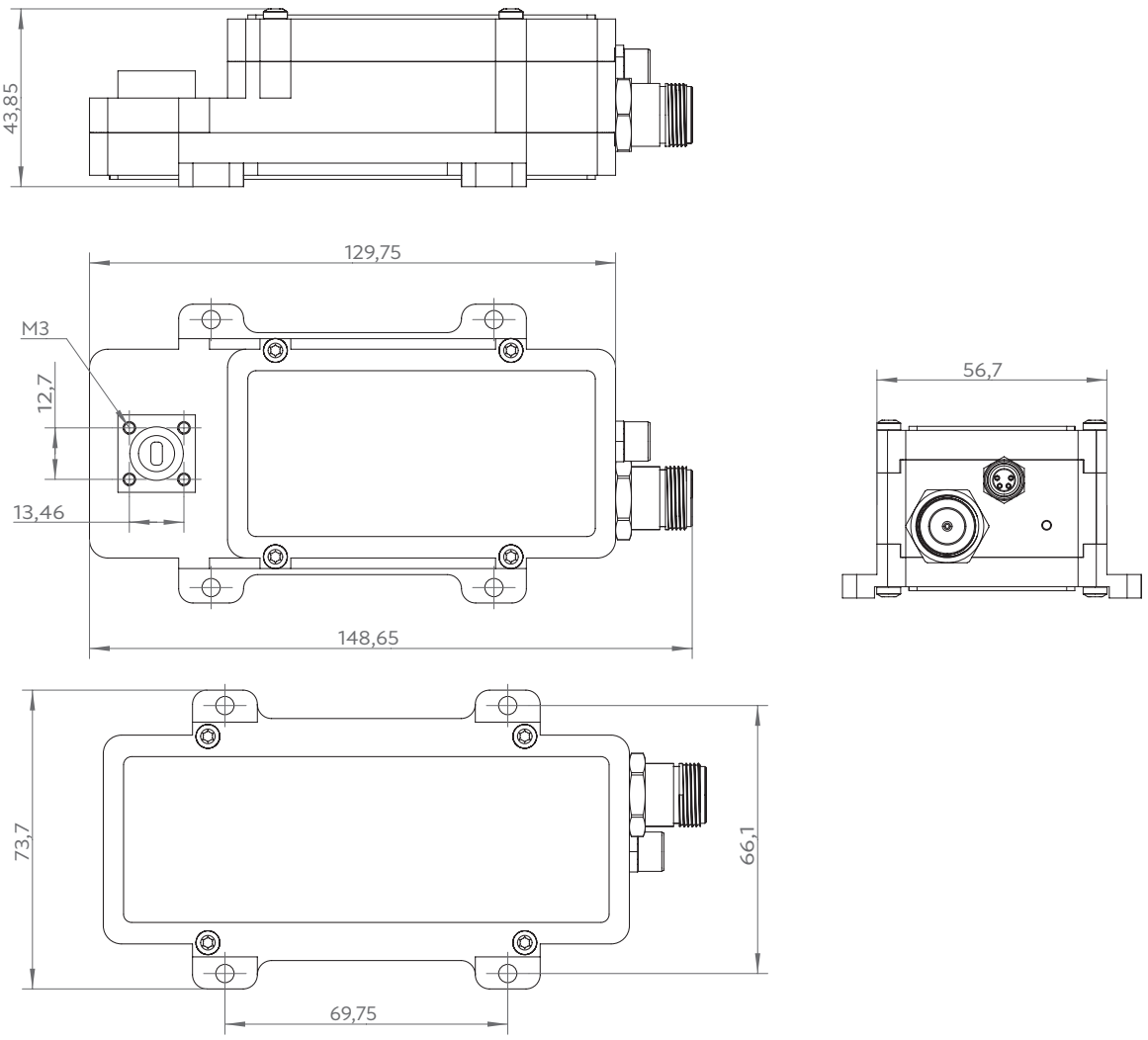
Technical specifications

		Band 1	Band 2	Band 3	Band 4	Band 5
INPUT	Input frequency	37.50-38.50 GHz	38.50-39.50 GHz	39.50-40.50 GHz	40.50-41.50 GHz	41.50-42.50GHz
	LO frequency	36.55 GHz	37.55 GHz	38.55GHz	39.55 GHz	40.55 GHz
		Choose 2 to 5 of the above bands for your model				
	Switching	Via M&C (Modbus RTU mode), optionally Voltage 13/15/18/24 Volt (Legacy mode)				
	Input WG	Waveguide WR22. Various flanges available on request				
	Input VSWR	2.0:1 max. w/o isolator				
	DC input	+11 to +26 V through output connector or optional connector (SMA), see switching above. Power consumption 5W max.				
INTERNAL	LO reference	Ext. 10 MHz ref, Sine wave, Level -10 to +10 dBm, (Internal ref; ±35 ppm -40 to +80°C, -40 to +176°F)				
	LO Leakage	-60 dBm max. @ waveguide input, -40dBm max. @ IF output				
	Gain	50 dB as default, adjustable 40-55 dB via M&C				
	Gain over temperature	±2 dB max., Automatic temperature Gain compensation				
	Flatness each band	± 1.5 dB max.@ 950-1950 MHz				
	Noise figure	2.6 dB typ., 3.4 dB max. @ 23°C				
	Ultra Low Phase Noise	1 Hz -22dBc/Hz • 10 Hz -36dBc/Hz • 100 Hz -63dBc/Hz • 1 kHz -75dBc/Hz • 10 kHz -85dBc/Hz • 100kHz -93dBc/Hz • 1MHz -120Bc/Hz • 10MHz -128dBc/Hz max.				
	Image Rejection	23 dB min.				
	Max input level	-20 dBm survival continuous power in range 25.0-55.0 GHz				
	Desensitization	Min. -25 dBm, the absolute level out of band that decreases NF by 0.1 dB in the band 47-52 GHz and 27-31 Ghz (uplink Ka)				
	Spuriouses in band	W/o signal -75 dBm max., with -10 dBm output signal -60 dBc max.				
	Group delay	Max. +/- 1ns @ 500 MHz bw, max. +/- 2ns @ 1500 MHz bw				
OUTPUT	IF output	950-1950 MHz				
	Output P1dB	+15 dBm min.				
	Output IP3	+25 dBm min.				
	Output VSWR	1.7:1 max.				
	Output Connector	N-type 50Ω standard, Option: SMA-type 50Ω				
GENERAL	Alarm functions	Sum alarm, set via M&C to alarm in any combination of: LNA failure, Total current, LO lock (Ext/Int/n/a), signal power high/low, Supply voltage low. Open collector 3.3 to 28 V, max. 200 mA (pull-up 10 k Ohm at host side), pin 1 in M8 connector.				
	Monitoring & Control	Via MODBUS RTU RS485 electrical interface, see sep. document for details. NOTE! Mates with M8 male connector/Cable, use only shielded cables ≥CAT5				
	Dimensions	144 x 74 x 45 mm (N-connector)				
	Weight	375 g				
	Temperature range	Storage and operating: -40 to +80°C, -40 to +176°F				
	Miscellaneous	Enclosed conductive O-ring, mounting screws (M3 x 8) 4 pcs				
OPTIONS	Options	- Separate SMA connector for External ref. and/or DC input - Voltage switching - Models with external LO ref. source 50, 100 or 144 MHz - Pressurizable 0.1 bar max.				

Swedish Microwave AB | Dynamovagen 5 | S-591 61 Motala | Sweden | Contact: +46 141 21 61 35 | sales@smw.se | smw.se

Q LNB 37.50 - 42.50 GHz 2-5 Band

Technical Drawing



Designed and Manufactured IN SWEDEN

Professional Satcom Frequency Converters & Components. All products are fully CE and RoHS complient and every unit includes full documentation of performance tests and quality control. Please contact sales@smw.se to configure or customize the unit to your needs. Visit smw.se or scan QR code to see our full product range and request a quote.

Swedish Microwave AB | Dynamovagen 5 | S-591 61 Motala | Sweden | Contact: +46 141 21 61 35 | sales@smw.se | smw.se