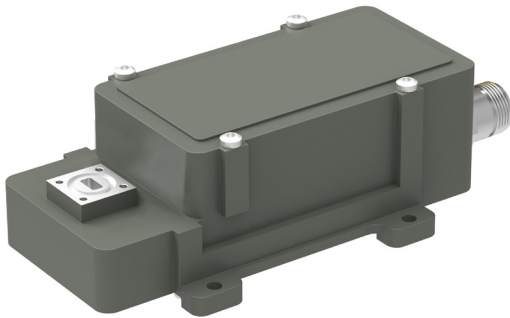


Q LNB 37.50 - 42.50 GHz 1-5 Band

Key features



- Input frequency range 37.50 to 42.50 GHz
- Low phase noise and noise figure
- Single or Switchable LO frequency
- Superwide or standard IF frequency output
- Monitoring & Control interface as standard
- Automatic temperature Gain compensation

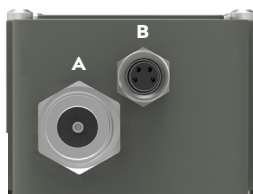


Description

The Q-Band LNB of the future, today. Packed full of our latest technology, our device provides coverage 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-f, (option F-f or SMA-f)

Functions: L-Band out, DC in, External 10 MHz in

Connector B (standard)

Type: M8 female, 4 pin, A-coded

Functions: Alarm and M&C

LNB connectors (optional)



Connector C (optional)

Type: SMA-f only

Functions: Ext. 10 MHz 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



Q LNB 37.50 - 42.50 GHz 1-5 Band

Technical specifications

		Input frequency (GHz)	LO frequency (GHz)	Output frequency (MHz)
MODEL	2-Band	Sub band 1	37.50 - 40.00	36.55
		Sub band 2	40.00 - 42.50	39.05
	Multiband	Sub band 1	37.50-38.50	36.55
		Sub band 2	38.50-39.50	37.55
		Sub band 3	39.50-40.50	38.55
		Sub band 4	40.50-41.50	39.55
		Sub band 5	41.50-42.50	40.55
		Switching	Via M&C (Modbus RTU mode), optionally Voltage 13/15/18/24 Volt (Legacy mode)	
INPUT	Input WG	Waveguide WR22. Various flanges available on request		
	Pressurizable	0.1 bar max.		
	Input VSWR	2.0:1 max. w/o isolator		
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		
	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.@ 950-2450 MHz, ± 2 dB max.@ 950-3450 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)		
	Spurioues 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		
	DC and OUTPUT	DC Input	+11 to +26 V through output connector or optional connector (SMA), see switching above. 5W max.	
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 DC input Voltage switching Models with external LO ref. source 50, 100 or 144 MHz		

C-BAND

X-BAND

KU-BAND

KA-BAND

Q/V-BAND

RFoFIBER

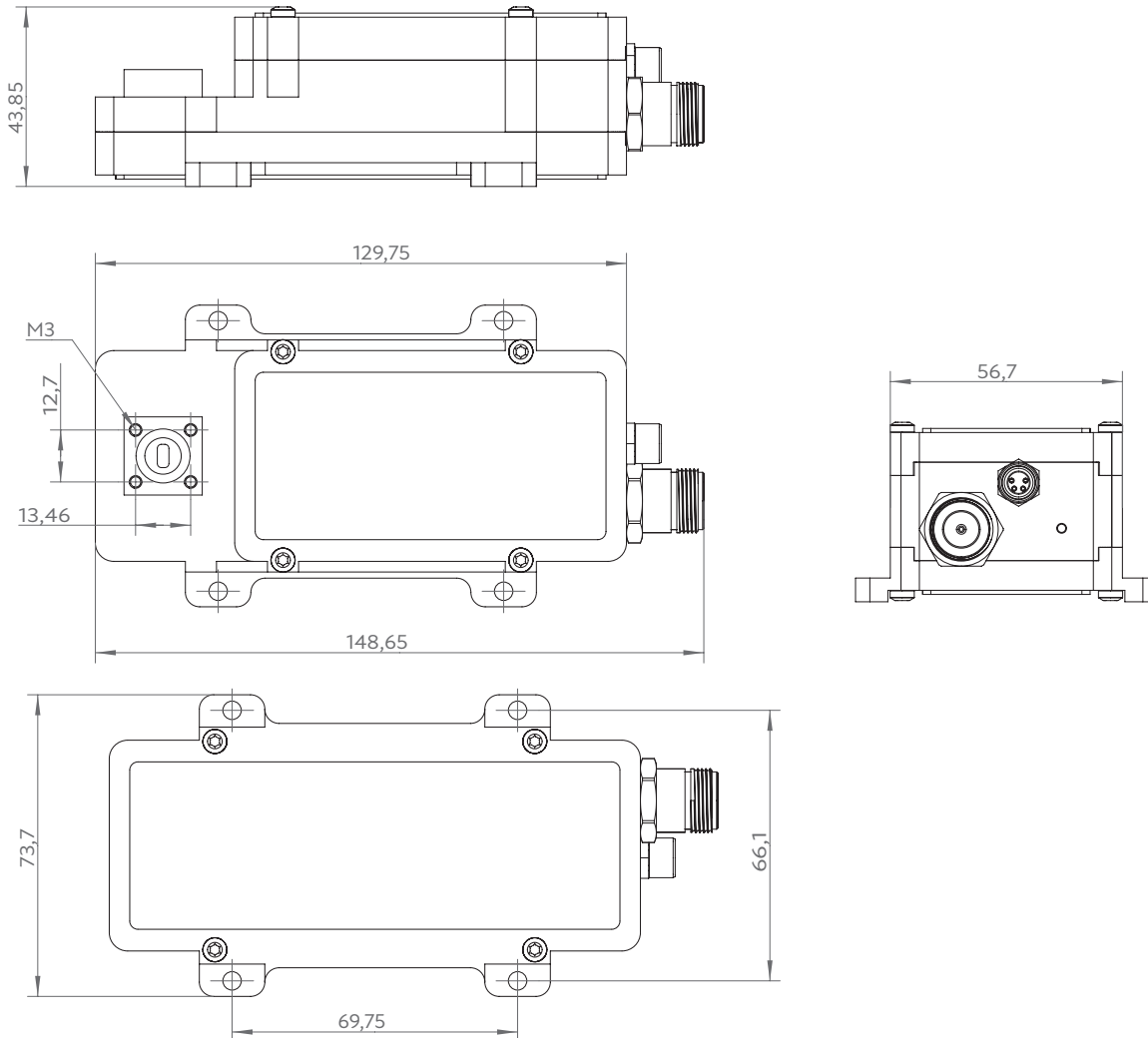
L-BAND

EXT REF

OTHER

Q LNB 37.50 - 42.50 GHz 1-5 Band

Technical Drawing



Designed and
Manufactured



Professional Satcom Frequency Converters & Components. All products are fully CE and RoHS compliant 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.

