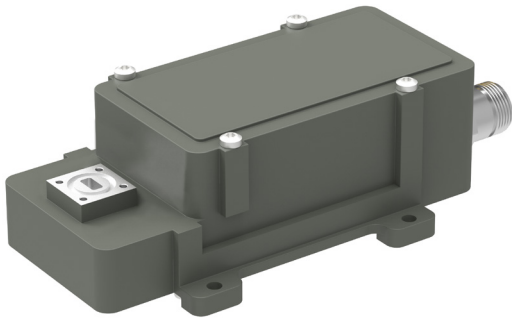


Q LNB 37.50 - 42.50 GHz 1 Band

Key features



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

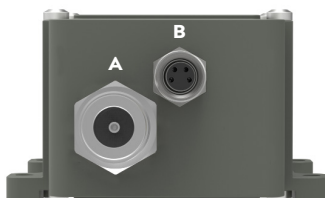


Description

The Q-Band LNB of the future, today. Packed full of our latest technology, our device provides coverage 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)



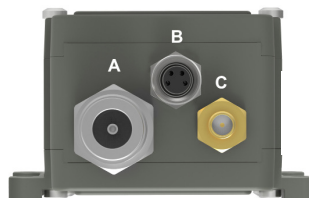
Connector A (standard)

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



Q LNB 37.50 - 42.50 GHz 1 Band

Technical specifications

	MODEL	37.50-38.50	38.50-39.50	39.50-40.50	40.50-41.50	41.50-42.50
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
	Input WG	Waveguide WR22. Various flanges available on request				
	Input VSWR	2.3:1 max. w/o isolator				
	DC input	+11 to +26 V through output connector or optional connector (SMA). Power consumption 5W max.				
	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 variation over 24h	±0.1 dB @ 23°C				
INTERNAL	Gain over temperature	±2 dB max., Automatic temperature Gain compensation				
	Flatness each band	± 2.0 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 -32dBc/Hz • 100 Hz -60dBc/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				
OPTIONS	Miscellaneous	Enclosed conductive O-ring, mounting screws (M3 x 8) 4 pcs				
	Options	- Separate SMA connector for External ref. and/or DC input - Models with external LO ref. source 50, 100 or 144 MHz - Pressurizable 0.1 bar max.				

C-BAND

X-BAND

KU-BAND

KA-BAND

Q/V-BAND

RFo FIBER

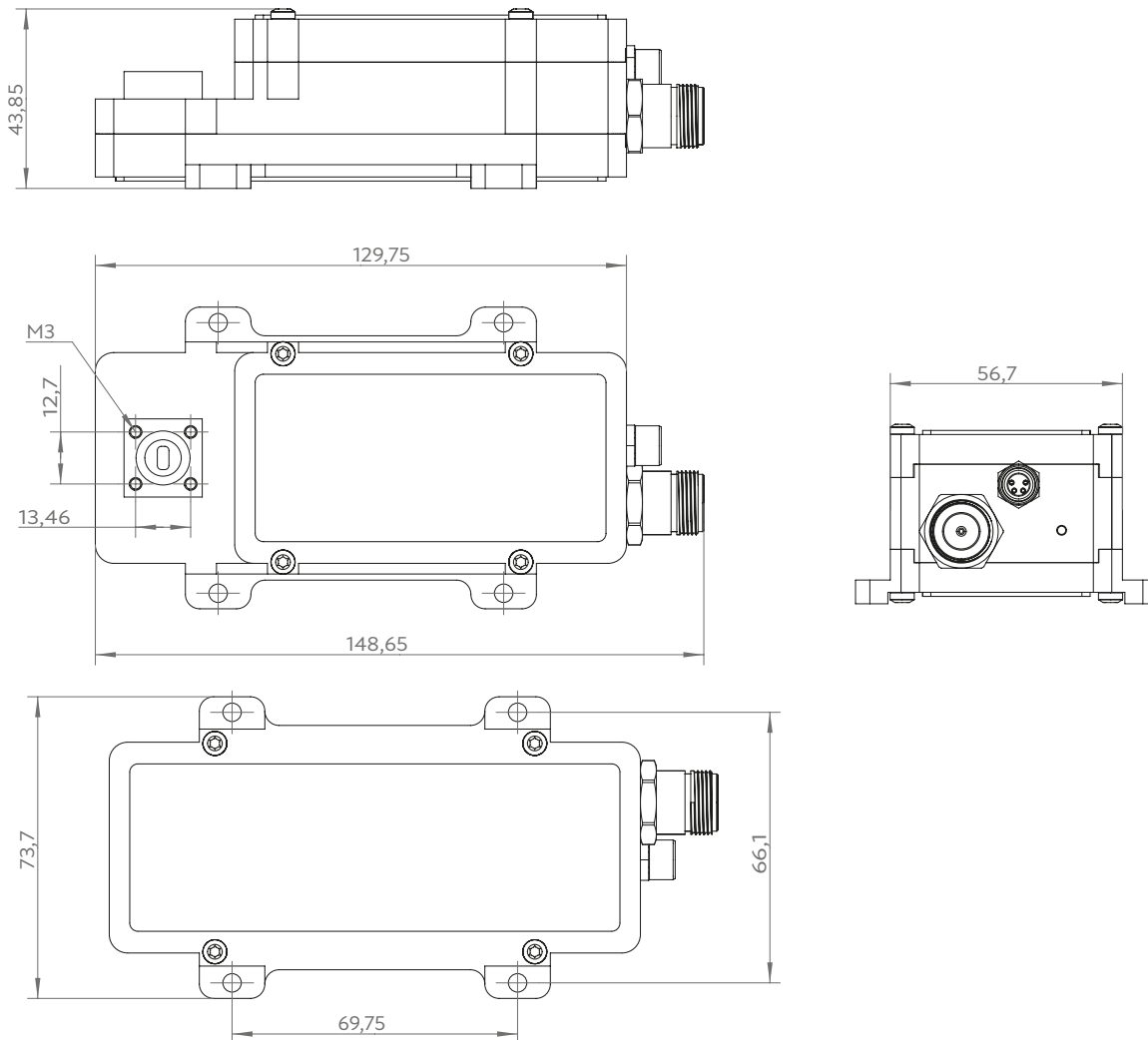
L-BAND

EXT REF

OTHER

Q LNB 37.50 - 42.50 GHz 1 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.



SMW
SWEDISH MICROWAVE AB

Technical specifications are typical, for specific part number specifications, please contact us. Specifications are subject to change without prior notice. Products from Swedish Microwave AB are made for commercial use.
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