

Ka LNB 27.00-31.00 GHz 1 Band Uplink Monitoring

Key features



- Single LO models within 27.00-31.00 GHz
- Auto Switch between External or Internal ref.
- Low power consumption
- Alarm and Monitoring & Control as standard

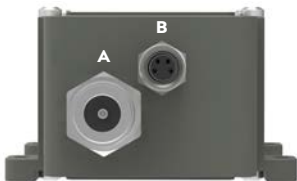


Description

LNB for uplink monitoring. As a well-known manufacturer of high quality, high performance, cost effective Professional Satcom Block Downconverter products and related equipment, we wanted to apply our knowledge and experience in this great product for uplink monitoring.

The new LNB has Alarm and Monitoring & Control as standard via Modbus RTU RS 485 that allows surveillance from a PC.

LNB connectors standard



Connector A (standard)
Type: N female, (option F female or SMA female)
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 connector optional



Connector C (optional)
Type: SMA female 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

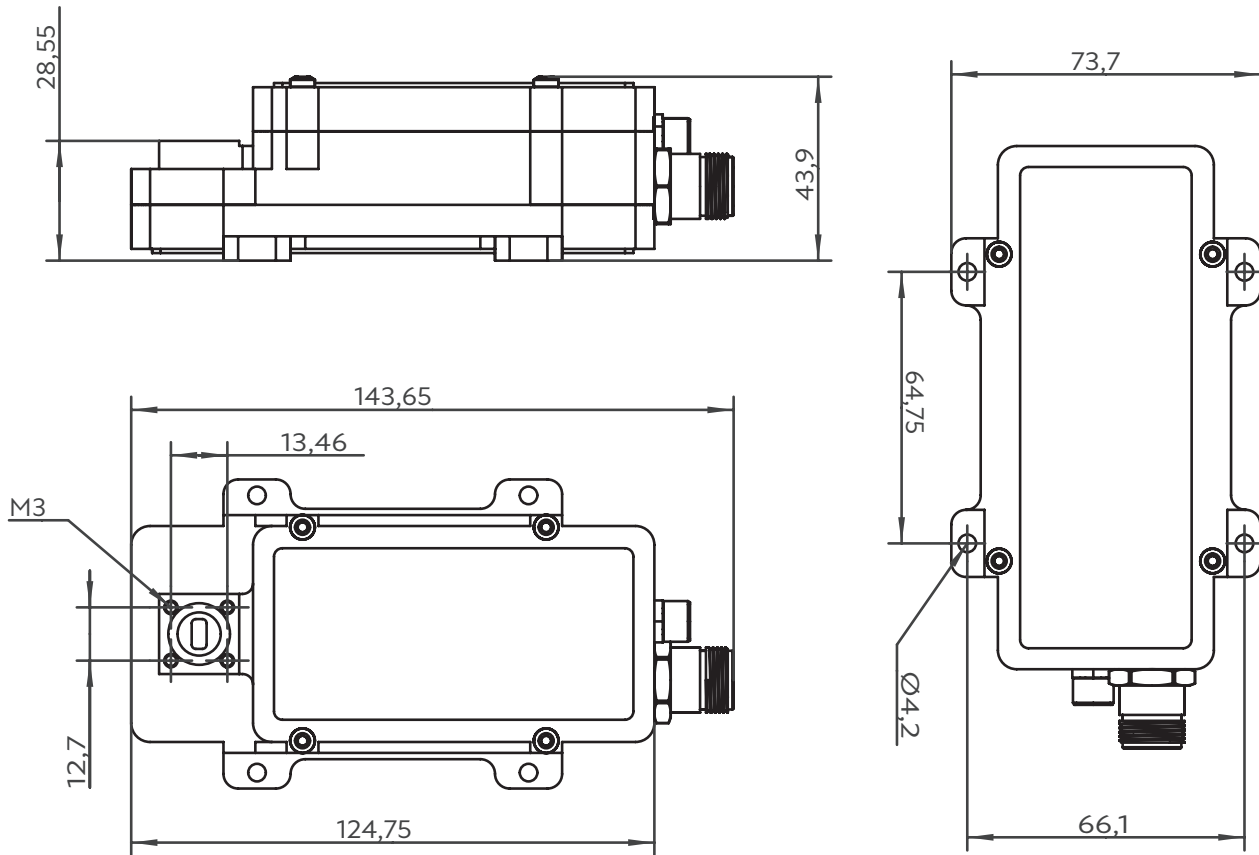
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Technical specifications

	LO (GHz)	26.05	26.55	27.05	27.55	28.05	28.55	29.05	29.55
INPUT	Input frequency (GHz)	27.00-28.50	27.50-29.00	28.00-29.50	28.50-30.00	29.00-30.50	29.50-31.00	30.00-31.00	30.50-31.00
	Input WG	Waveguide WR28. Flange PBR 320							
	DC Input	+12 to +24 V nominal through RF output connector or separate connector (SMA). Power consumption 6.5W max.							
	Input VSWR	2.0:1 max.							
	LO reference	Auto LO ref. External 10 MHz ref / Internal ± 2.5 ppm -40 to +71°C							
INTERNAL	Internal LO ref.	± 2.5 ppm max. -40 to +71°C							
	External 10 MHz ref.	Sine Wave, Level -10 dBm to +10 dBm. Supplied through output connector or optional separate SMA.							
	LO Leakage	-60 dBm max. @ waveguide input, -40 dBm max. @ IF output							
	Gain	40 dB typ.							
	Gain Flatness	± 0.4 dB max. within 30 MHz, ± 2 dB max. over each band							
	Gain Stability	± 1 dB over 24 hours							
	Noise figure @ 23°C	4.0 dB / 438 K							
	Phase Noise	-30 dBc @ 10 Hz -60 dBc @ 100 Hz -70 dBc @ 1 kHz -80 dBc @ 10 kHz -90 dBc @ 100 kHz -100 dBc @ 1 MHz typ.							
	Group delay	± 1 ns max.							
	Image Rejection	37 dB min. (LO ≥ 28.05 27 dB min.)							
OUTPUT	Output frequency (MHz)	950-2450	950-2450	950-2450	950-2450	950-2450	950-2450	950-1950	950-1450
	Output P1dB	+15 dBm min.							
	Output IP3	+25 dBm min.							
	Output VSWR	2.0:1 max.							
	Output Connector	N female 50 Ω or SMA female 50 Ω							
GENERAL	Alarm	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 document Monitoring and Control technical interface for details. NOTE! Mates with M8 male connector/Cable, use only shielded cables min CAT5.							
	Dimensions	144 x 74 x 44 mm (N connector)							
	Weight	430 g (N connector)							
	MTBF	MTBF as per MIL-HDBK-217F Notice 2: Environmental Condition GF (Ground Fixed): >690000 hours, Environmental Condition AIC (Airborne, Inhabited, Cargo): >360000 hour, Quality level: Commercial, Temperature used for MTBF calculation: +35°C Ambient							
	Temperature range	Storage and operating: -40 to +71°C, -40 to +160°F							
	Miscellaneous	Enclosed conductive O-ring, mounting screws, Allen head M3*0.5, 8mm long, 4 pcs							
OPTIONS		- Customized gain and LO - Separate SMA connector for Ext. 10 MHz LO ref. or DC input - Pressurizable 0.1 bar max.							

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Technical drawings



Designed and
Manufactured



IN SWEDEN

SMW 

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