

Ka LNB 27.00-31.00 GHz 2-4 Band Uplink Monitoring

Key features

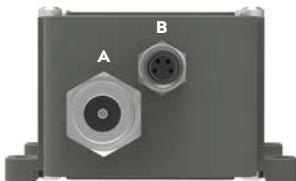


- 
 - 2, 3 or 4 switchable LO Bands
 - External reference with fallback to Internal ref.
 - Low power consumption
 - Alarm and Monitoring & Control as standard
 - Automatic temperature gain compensation

Description

The Swedish Microwave Ka-Band LNB is based on a well proven technology platform. The product is designed to monitor uplink transmissions.

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

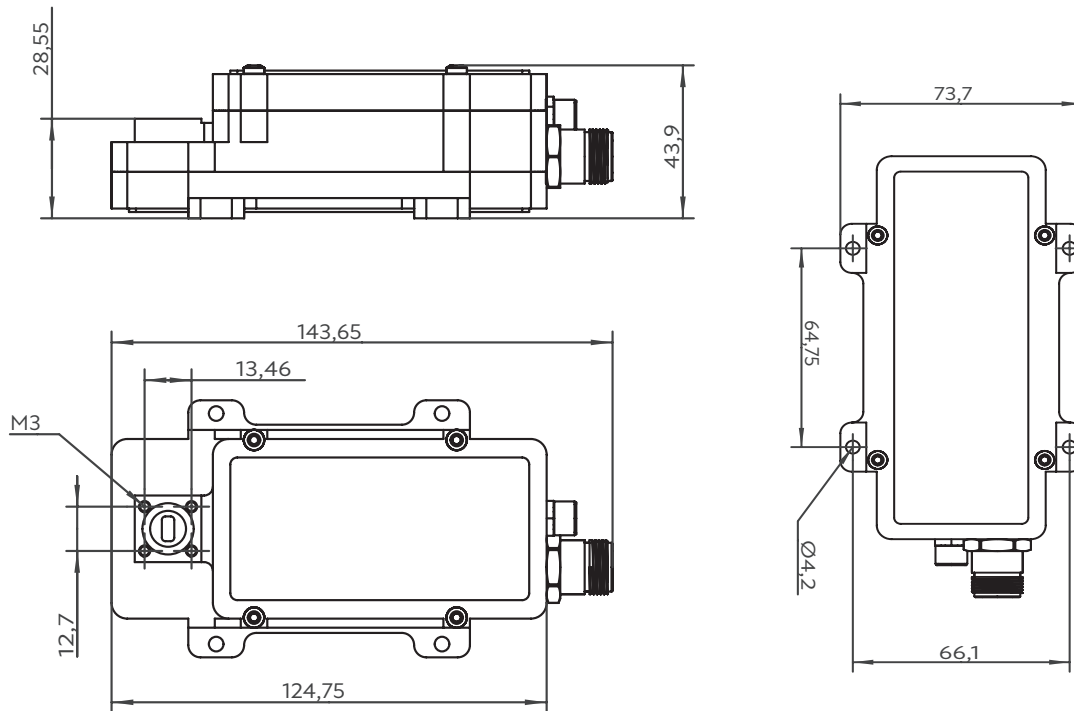
Ka LNB 27.00-31.00 GHz 2-4 Band Uplink Monitoring

Technical specifications

		Band 1	Band 2	Band 3	Band 4
INPUT	LO (GHz)	26.05	27.05	28.05	29.05
	Input frequency (GHz)	27.00-28.50	28.00-29.50	29.00-30.50	30.00-31.00
	Band switching	2-4 Bands of above, 13/18V and 22 kHz tone or via M&C			
	Input WG	Waveguide WR28. Flange PBR 320			
	DC Input	+12 to +24 V nominal through RF output connector or separate connector (SMA). Power consumption 6W max.			
INTERNAL	Input VSWR	2.0:1 max.			
	LO reference	External 10 MHz ref. with fallback to Internal ± 30 ppm -40 to +71°C			
	Internal LO ref.	± 30 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., custom 0-40 dB via M&C			
	Gain Flatness	± 0.4 dB max. within 30 MHz, ± 2 dB max. over each band @ -40 to +71°C			
	Gain Stability	± 1 dB over 24 hours			
	Temp. compensated	Yes			
	Noise figure @ 23°C	4.0 dB / 438 K			
	Phase Noise	-34 dBc @ 10 Hz -64 dBc @ 100 Hz -84 dBc @ 1 kHz -92 dBc @ 10 kHz -96 dBc @ 100 kHz -113 dBc @ 1 MHz -123 dBc @ >10 MHz typ.			
	Group delay	± 1 ns max.			
OUTPUT	Image Rejection	37 dB min. (LO $\geq$ 28.05 27 dB min.)			
	Output frequency (MHz)	950-2450	950-2450	950-2450	950-1950
	Output P1dB	+15 dBm min.			
	Output IP3	+25 dBm min.			
	Output VSWR	2.0:1 max.			
GENERAL	Output Connector	N female 50 Ω or SMA female 50 Ω			
	Alarm	Sum alarm, set via M&C to alarm in any combination of: High/Low current, LO lock (External/Internal), signal power High/Low, supply voltage Low/High. Open collector 3.3 to 28 V, max. 200 mA (pull-up 10 k Ohm at host side), NO/NC, 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			
OPTIONS	Miscellaneous	Enclosed conductive O-ring, mounting screws, Allen head M3*0.5, 8mm long, 4 pcs			
		- Customized gain and LO - Separate SMA connector for External ref. and/or power input - Pressurizable 0.1 bar max.			

Ka LNB 27.00-31.00 GHz 2-4 Band Uplink Monitoring

Technical drawing



Designed and
Manufactured



SMW

ESATCOM
INC

SMW authorized distributor

ESATCOM INC.

3628 Francis Lewis Blvd.

Flushing, NY 11358

www.esatcom.com

Tel: 718.799.0084

Email: sales@esatcom.com