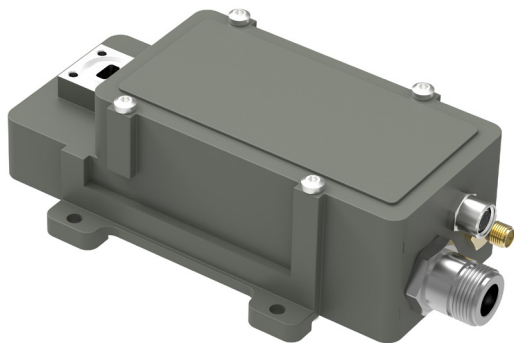


27.00–31.00 GHz PLL LNB / BDC / TLT

Key features



- Single LO models within 27.00-31.00 GHz
- Auto LO ref Ext. 10 MHz / Internal ± 2.5 ppm
- High P1dB and IP3
- Wide operating temperature range
- Enclosure fixing points
- Alarm and Monitoring & Control via Modbus RTU RS485

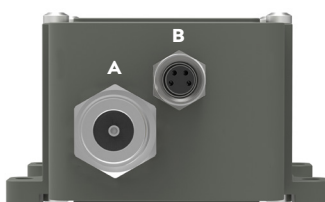


Description

LNB / BDC 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.

BDC connectors (standard)



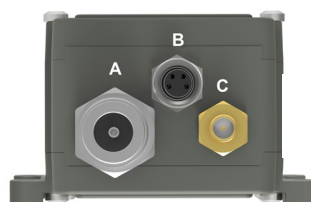
Connector A (standard)

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

BDC 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

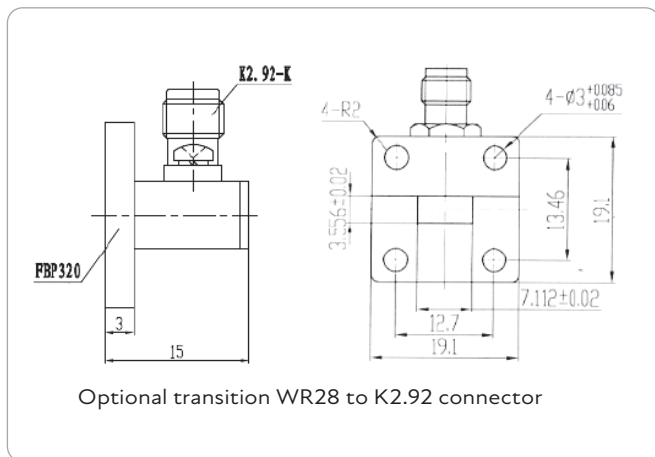
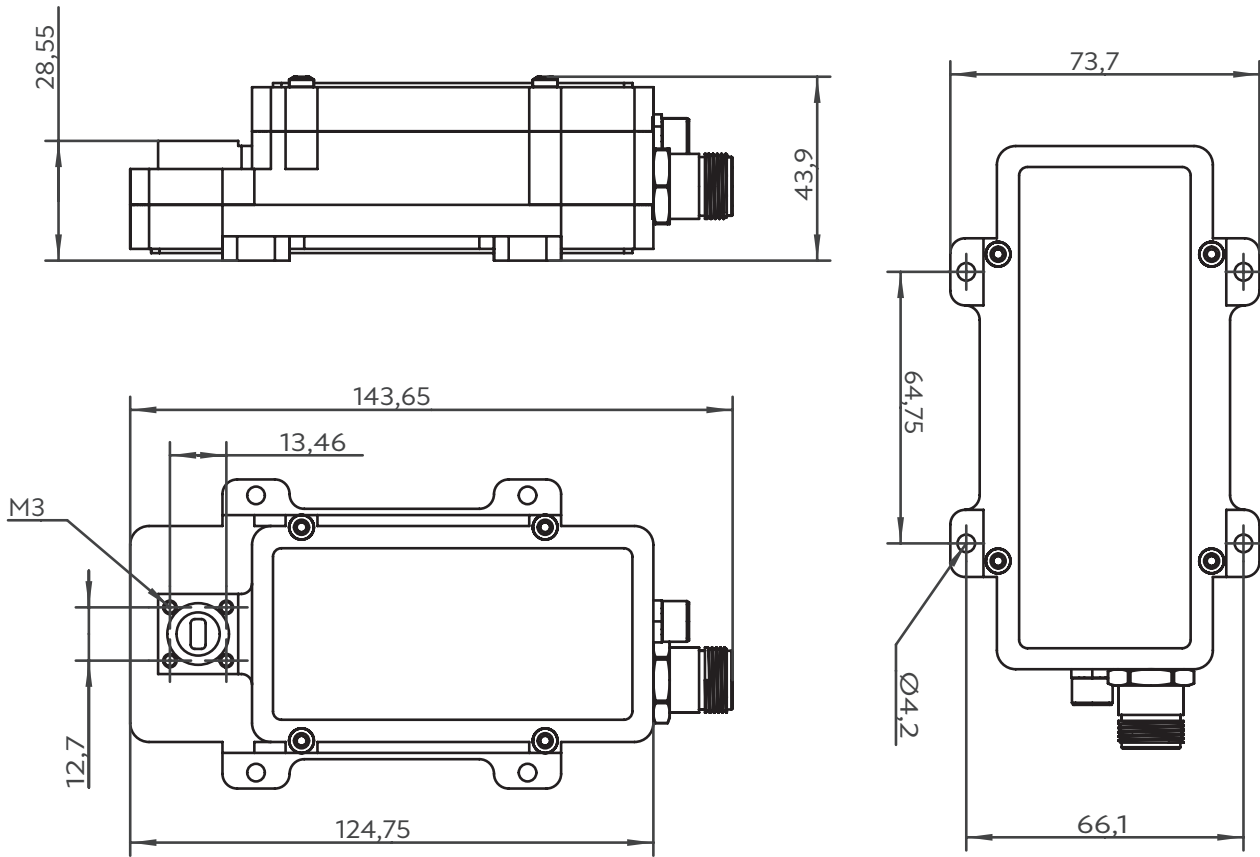
27.00–31.00 GHz PLL LNB / BDC / TLT

Technical specifications

INPUT	LO (GHz)	26.05	26.55	27.05	27.55	28.05	28.55	29.05	29.55
	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, optional transition WR28 to 2.92 /K female							
	Pressurizable	0.1 bar max.							
	Input VSWR	2.0:1 max.							
INTERNAL	LO reference	Auto LO ref. External 10 MHz ref / Internal ± 2.5 ppm -40 to +71°C							
	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							
	Gain	40 dB default, Adjustable 0-40 dB via M&C (Factory set by request)							
	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 @ max. gain							
	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.							
	Image Rejection	37 dB min. (LO \geq 28.05 27 dB min.)							
DC and OUTPUT	DC Input	+12 to +24 V nominal through RF output connector or separate connector (SMA). Power consumption 6.5W max.							
	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.							
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: 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)							
	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							
		Transition WR28 waveguide to K2.92 connector							
		Separate SMA connector for Ext. 10 MHz LO ref. & DC input							
		Pressurizable 0.1 bar max.							

27.00–31.00 GHz PLL LNB / BDC / TLT

Technical drawings



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.

