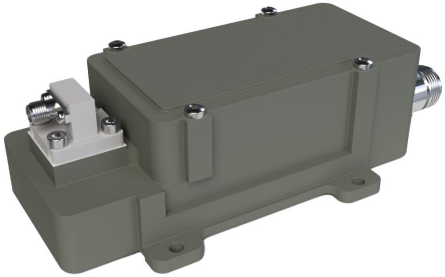


# Ka BDC 27.00-31.00 GHz 1 Band Uplink Monitoring

## Key features



- Single LO models within 27.00-31.00 GHz
- Auto Switch between External or Internal ref.
- Alarm, Monitoring & Control as standard
- Low power consumption
- Transition WR28 to K2.92 as standard

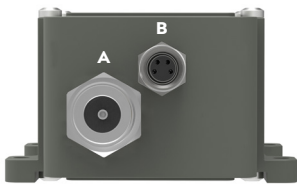


### Description

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.

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

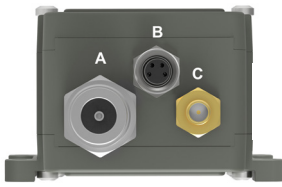
BDC connectors (standard)



**Connector A (standard)**  
Type: N 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

BDC connectors (optional)

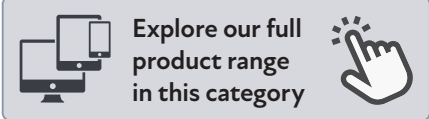


**Connector C (optional)**  
Type: SMA female only  
Functions: Ext. 10 MHz in and/or DC input

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



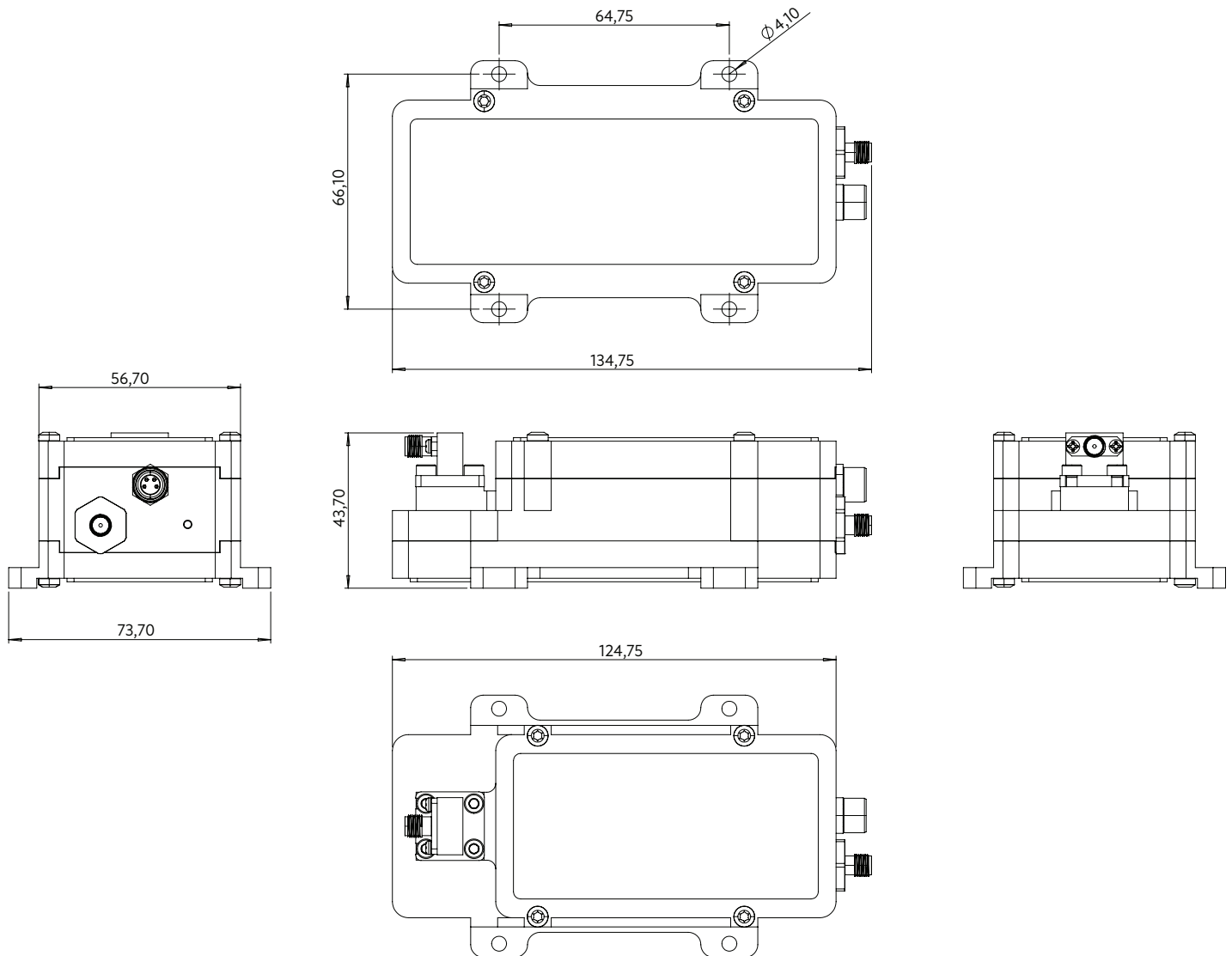
# Ka BDC 27.00-31.00 GHz 1 Band Uplink Monitoring

## 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	2.92 / K female 50Ω							
	DC Input	+12 to +26 V 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 $\pm 2.5$ ppm -40 to +71°C							
INTERNAL	Internal LO ref.	$\pm 2.5$ 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. @ RF input, -40 dBm max. @ IF output							
	Gain	40 dB typ. (Programmable 0 - 40 dB via M&C)							
	Gain Flatness	$\pm 0.4$ dB max. within 30 MHz, $\pm 2$ dB max. over each band							
	Gain Stability	$\pm 1$ dB over 24 hours							
	Noise figure @ 23°C	4.0 dB / 438 K typ. @ 40 dB 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.							
	Group delay	$\pm 1$ ns max.							
	Image Rejection	37 dB min. (LO $\geq$ 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 50Ω or SMA female 50Ω							
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 <a href="#">Monitoring and Control technical interface</a> for details. NOTE! Mates with M8 male connector/Cable, use only shielded cables min CAT5.							
	Dimensions	135 x 74 x 44 mm (N connector)							
	Weight	440 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							
OPTIONS	Temperature range	Storage and operating: -40 to +71°C, -40 to +160°F							
		- Customized gain and LO - Separate SMA connector for Ext. 10 MHz LO ref. and / or DC input							

# Ka BDC 27.00-31.00 GHz 1 Band Uplink Monitoring

## 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](mailto:sales@smw.se) to configure or customize the unit to your needs. Visit [smw.se](http://smw.se) or scan QR code to see our full product range and request a quote.

