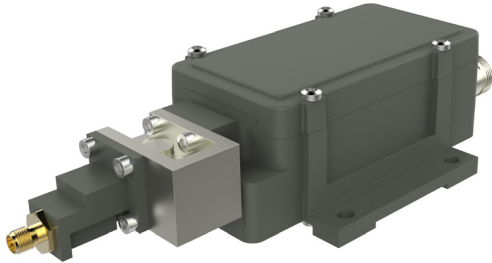


Single band PLL BDC

Professional Ka-Band BDC with Low Phase Noise

The Ka-Band PLL BDC is a family of single-band BDC that covers the wide frequency range 17.3-22.2 GHz with several sub bands and LO frequencies. The BDC features Low Phase Noise meets all profiles of DVB-S2X.



Features

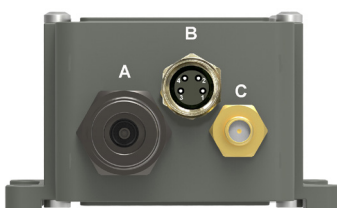
- **NEW!** Optional Alarm output and M&C interface
- Auto switching LO ref: Internal / Ext. 10 MHz
- Frequency range 17.30-22.20 GHz
- Several LO frequencies available
- Low Phase Noise
- High P1dB and IP3
- Compact size and light weight
- Wide operating temperature range

TECHNICAL SPECIFICATIONS

MODEL:	16.35	16.75	17.20	17.25	18.20	18.25	18.75	19.20	19.25	20.20	20.25
Input Frequency	17.30-18.30 GHz	17.70-18.70 GHz	18.20-19.20 GHz	18.20-19.20 GHz	19.20-20.20 GHz	19.20-20.20 GHz	19.70-20.20 GHz	20.20-21.20 GHz	20.20-21.20 GHz	21.20-22.20 GHz	21.20-22.20 GHz
LO Frequency	16.35 GHz	16.75 GHz	17.20 GHz	17.25 GHz	18.20 GHz	18.25 GHz	18.75 GHz	19.20 GHz	19.25 GHz	20.20 GHz	20.25 GHz
Output Frequency	950-1950 MHz	950-1950 MHz	1000-2000 MHz	950-1950 MHz	1000-2000 MHz	950-1950 MHz	950-1450 MHz	1000-2000 MHz	950-1950 MHz	1000-2000 MHz	950-1950 MHz
Gain	Mid gain, 30 to 40 dB in 5 dB steps						High gain, 45 dB to 60 dB in 5 dB steps				
Flatness	±0.4 dB max. within 30 MHz						±2 dB max. over each band				
Noise Figure / Noise Temperature	4 dB / 438 K typ.						2 dB / 170 K @ 60dB gain typ.				
Phase Noise	-35 dBc @ 10 Hz -65 dBc @ 100 Hz -80 dBc @ 1 kHz -85 dBc @ 10 kHz -95 dBc @ 100 kHz -112 dBc @ ≥1 MHz typ.										
Image Rejection	30 dB min.										
Input Connector	SMA-type 50Ω										
Input VSWR	1.9:1 max. with Waveguide isolator included										
LO Leakage	-60 dBm @ RF input										
LO Referens	Auto switch External / Internal										
Internal Ref. Stability	±2.5 ppm -40 to +60°C (±3.5 ppm -40 to +80°C)										
External 10 MHz Ref.	Sine wave, Level: -10 to +10 dBm. Supplied through output connector										
Output P1dB	+5 dBm min						+15 dBm min.				
Output IP3	+15 dBm min.						+25 dBm min.				
Output VSWR	1.7:1 typ.										
Output Connector	F-type 75Ω / N-type 50Ω / SMA-type 50Ω										
DC Input	+11 to +26 V, Supplied through output connector										
Power Consumption	5W max.										
Temperature Range	Storage and operating: -40 to +80°C										
Dimensions	178 x 80 x 46 mm (F- & SMA-connector)					184 x 80 x 46 mm (N-connector) (for drawing, see www.smw.se)					
Weight	399 g (F- & SMA-connector)					418 g (N-connector)					
Optional Alarm	Interface: Separate M8-connector (B), Open collector, Open on fault, 3,3 to 24 V, max. 200 mA Available Alarms: LO not locked, Total current consumption, Power detector outside limits, RF level outside limits										
Optional M&C	Via MODBUS RTU RS485 electrical interface, see sep. document for details. NOTE! Mates with M8 male connector. Cable: shielded min. CAT5										
Options	Customized LO, gain and variation, Separate DC input (SMA-f), Separate 10 MHz ref. input (SMA-f), Extended IF, Alarm, M&C										

Rev. 12-21-8E

BDC rear connectors



Connector B (opt.)



5 SHIELD

- 1 = Alarm. open coll.
- 2 = A pos+, RS485
- 3 = B neg-, RS485
- 4 = Common (GND)
- 5 = Shield

Connector A (standard)

Type: N-f, (option F-f or SMA-f)
Functions: L-Band out, DC in, External 10 MHz in

Connector B (optional)

Type: M8 female, 4 pin, A coded
Functions: Alarm and M&C

Connector C (optional)

Type: SMA-f only
Functions: Ext. 10 MHz in or DC input

Above parameters are generic product family values. For part number specific min./max. values, please consult us.

Specifications are subject to change without notice. Products from Swedish Microwave AB are made for commercial use.