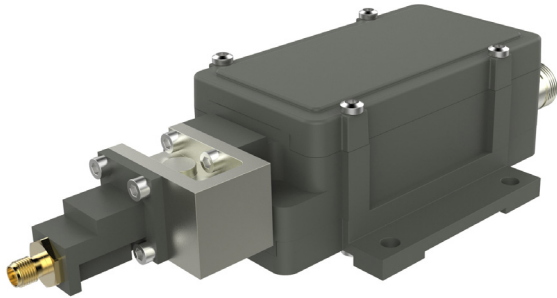


2-Band PLL BDC

Professional Ka-Band BDC with Low Phase Noise



The Ka-Band BDC 2-Band switchable BDC that covers the wide frequency range 17.30-22.20 GHz with several sub-bands and LO frequencies.

The BDC features Low Phase Noise to meet the DVB-S2X Professional services profile. It is designed for reliable operation over a high temperature range for installation in various outdoor environments or build-in applications.

Options include customized LO, customized gain, separate DC power input and separate input for the external 10 MHz reference.

Features

- Frequency range 17.30-22.20 GHz
- Several LO frequencies available
- Choose between Internal Ref. or External Ref. input models
- Standard Ultra Low Phase Noise meets all profiles of DVB-S2X
- High P1dB and IP3
- Compact size and light weight
- Wide operating temperature range

TECHNICAL SPECIFICATIONS

MODEL:	16.80 / 17.40	17.20 / 18.20	17.25 / 18.25	17.45 / 18.25	18.20 / 19.20	18.25 / 19.25	19.20 / 20.20	19.25 / 20.25
Input Freq. Band 1	17.75 - 18.75 GHz	18.20 - 19.20 GHz	18.20 - 19.20 GHz	18.40 - 19.20 GHz	19.20 - 20.20 GHz	19.20 - 20.20 GHz	20.20 - 21.20 GHz	20.20 - 21.20 GHz
Input Freq. Band 2	18.35 - 19.35 GHz	19.20 - 20.20 GHz	19.20 - 20.20 GHz	19.20 - 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	16.80 / 17.40 GHz	17.20 / 18.20 GHz	17.25 / 18.25 GHz	17.45 / 18.25 GHz	18.20 / 19.20 GHz	18.25 / 19.25 GHz	19.20 / 20.20 GHz	19.25 / 20.25 GHz
Output Freq. Band 1	950 - 1950 MHz	1000 - 2000 MHz	950 - 1950 MHz	950 - 1750 MHz	1000 - 2000 MHz	950 - 1950 MHz	1000 - 2000 MHz	950 - 1950 MHz
Output Freq. Band 2	950 - 1950 MHz	1000 - 2000 MHz	950 - 1950 MHz	950 - 1950 MHz	1000 - 2000 MHz	950 - 1950 MHz	1000 - 2000 MHz	950 - 1950 MHz
Switching Voltage	Band 1: 13 V (11.5 - 14.0 V) Band 2: 18 V (16.0 - 19.0 V)							
Gain	By request, 0 dB to 60 dB in 5 dB steps (Factory programmable)							
Flatness	±0.4 dB max. within 30 MHz, ±3 dB max. over each band							
Noise Figure / Noise Temperature	2 dB / 170 K @ 60dB gain configuration typ., increasing to appr. 20 dB / 28710 K @ 0 dB gain configuration							
Phase Noise	-40 dBc @ 10 Hz	-65 dBc @ 100 Hz	-85 dBc @ 1 kHz	-90 dBc @ 10 kHz	-95 dBc @ 100 kHz	-112 dBc @ ≥1 MHz typ.		
Image Rejection	30 dB min.							
Output P1dB	+15 dBm typ.							
Output IP3	+25 dBm typ.							
Output VSWR	2.0:1 typ.							
Output Connector	F-type 75Ω / N-type 50Ω / SMA-type 50Ω							
Input Connector	SMA-type 50Ω							
Input VSWR	1.9:1 max. with Isolator (included)							
LO Leakage	-60 dBm @ waveguide input							
MODELS with Internal Reference	±1 ppm -40 to +60°C (±1.5 ppm -40 to +80°C) / ±2.5 ppm -40 to +60°C (±3.5 ppm -40 to +80°C)							
MODELS with External 10 MHz Reference	Sine Wave, Level: -15 to +5 dBm. Supplied through output connector (with no ext. 10 MHz ref. present LO shifts -20 ppm)							
DC Input	DC, see switching voltage above							
Power Consumption	5 W typ.							
Temperature Range	-40 to +80°C							
Dimensions	178 x 80 x 44 mm (F- & SMA-connector), 184 x 80 x 44 mm (N-connector), for drawing, see www.smw.se							
Weight	326 g (F- & SMA-connectors), 345 g (N-connectors)							
Miscellaneous	Enclosed O-ring, mounting screws (M3 x 8) 4pcs.							
Options	Customized LO, gain & variation, Separate DC input connector F-, N- or SMA-type, Separate 10 MHz ref. input.							
See the RF over Fiber and L-Band sections for output options								