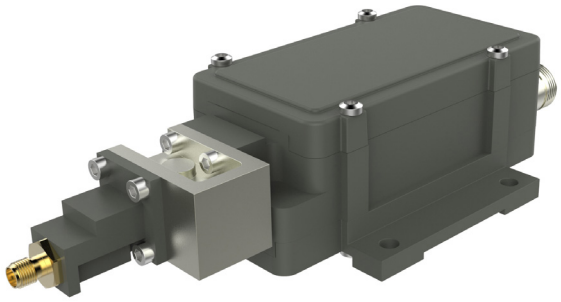
Single band PLL BDC

SMW SWEDISH MICROWAVE AB

Professional Ka-Band BDC with Low Phase Noise



DVB S2X

The Ka-Band BDC single 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:	16.35	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	By request, 0 dB to 60 dB in 5 dB steps (Factory programmable)										
Flatness	±0.4 dB max. within 30 MHz, ±2 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	+12 to +24 V, +13 to +24 V @ LO ≥ 18.75 GHz, Supplied through output connector										
Power Consumption	5W 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	399 g (F- & SMA-connector), 418 g (N-connector)										
Options	Customized LO, gain and 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											

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