



Professional Ka-Band BDC with Low Phase Noise



The Ka-Band BDC 2-Band switchable 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 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 17.3-22.2 GHz
- Several LO frequencies available
- Choose between Internal Ref. or External Ref. input models
- Ultra Low Phase Noise
- 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 Frequency	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
	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	Band 1/2	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 Frequency	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 Frequency	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	2.1:1 typ.								
Output Connector	F-type 75Ω / N-type 50Ω / SMA-type 50Ω								
Input Connector	SMA-type 50Ω								
Input VSWR	1.9:1 max. (with Waveguide isolator)								
LO Leakage	-60 dBm @ waveguide input								
Internal Ref. Stability	±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)								
External 10 MHz Ref.	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	121 x 56 x 44 mm (F- & SMA-connectors) 127 x 56 x 44 mm (N-connectors) (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.								