

## ***SMW Block Downconverters (BDC)***



The professional BDC comes standard with High IP3, Low Phase Noise and Extended frequency range. To limit the drift of frequency over temperature, you choose between the internal reference (LO-stability  $\pm 25$  or  $\pm 10$  kHz) and external 10 MHz reference.

Options include Separate DC power input connector, Customized LO and Separate input connector for the external 10 MHz reference.

All our LNBs are individually hand tuned to get the very best performance available for each unit. Quality and long term reliability is also essential. Therefore are all LNBs tested according to a very extensive test program, which includes heating, cooling, water-proof testing and rigorous electrical testing.

Swedish Microwave (SMW) was founded 1986 and is today a leading manufacturer of professional LNBs (Low Noise Blockdownconverters). The company is located in Motala Sweden, and to date the products are installed in more than 80 countries.

All work is in-house allowing custom-design products, short delivery times, high flexibility, quick service and support.

# Specification SMW Block Downconverter (BDC)

## SMW BDC

Frequency range  
LO frequency  
Output frequency

## 9.75 GHz

10.7-11.8 GHz  
9.75 GHz  
950 - 2050 MHz

## 10.0 GHz

10.95 - 12.1 GHz  
10.0 GHz  
950 - 2100 MHz

## 10.25 GHz

11.2 - 11.7 GHz  
10.25 GHz  
950 - 1450 MHz

## 10.6 GHz

11.7 - 12.75 GHz  
10.6 GHz  
1100 - 2150 MHz

## 10.75 GHz

11.7 - 12.75 GHz  
10.75 GHz  
950 - 2000 MHz

## SMW BDC

Frequency range  
LO frequency  
Output frequency

## 11.2 GHz

12.2 - 12.75 GHz  
11.2 GHz  
1000 - 1550 MHz

## 11.25 GHz

12.2 - 12.75 GHz  
11.25 GHz  
950 - 1500 MHz

## 11.3 GHz

12.25 - 12.75 GHz  
11.3 GHz  
950 - 1450 MHz

## 11.475 GHz

12.5 - 12.75 GHz  
11.475 GHz  
1025 - 1275 MHz

## General Specification

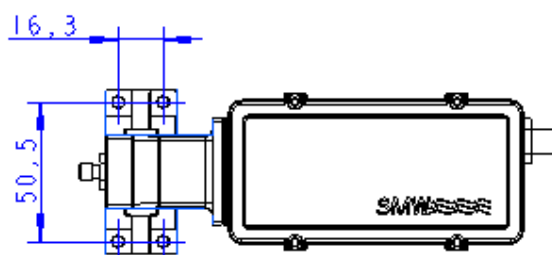
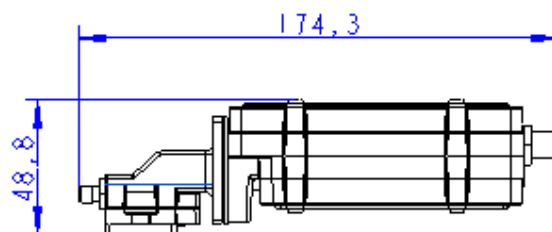
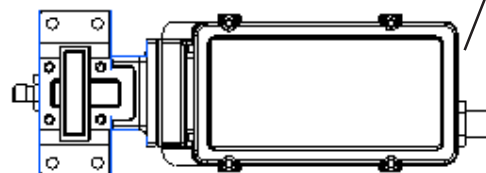
LO stability (over temp.)	Internal $\pm 25$ or $\pm 10$ kHz* or external 10 MHz reference (ext. ref. input power -5 to 10 dBm)
Gain	by request (min. 10 dB)
Gain variation within 30 MHz	$\pm 0.4$ dB
Noise figure typical	3 dB
LO Phase noise typical	-75 dBc @ 1 kHz -85 dBc @ 5 kHz -85 dBc @ 10 kHz -100 dBc @ 100 kHz -120 dBc @ >1 MHz
LO radiation	-60 dBm
Image rejection	40 dB min
1 dB gain compression point	+15 dBm typ. (+10 dBm with 10 dB gain)
IP3	+25 dBm typ. (+20 dBm with 10 dB gain)
Input (waterproof)	SMA-connector
Output (waterproof)	F-connector 75 ohm, N-connector 50 ohm or SMA-connector 50 ohm
Output VSWR	2.1:1 max
DC power	12 - 24 V 270 mA typ.
Operating temperature	-40 to +80 °C
Storage temperature	-40 to +80 °C
Dimensions F-connector	174.3 x 60 x 48.8 mm
N-connector	179.3 x 60 x 48.8 mm
Weight	712 g (F-connector) 728 g (N-connector)

## Options

Sep. DC power input  
Customized gain  
Customized LO  
Sep. input for ext. 10 MHz ref.

Option: Sep. DC power input via (F-, N- or SMA-connector).  
Sep. input for ext. 10 MHz ref. (F-, N- or SMA-connector).

\*Over the temp. -10° to +70° C



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