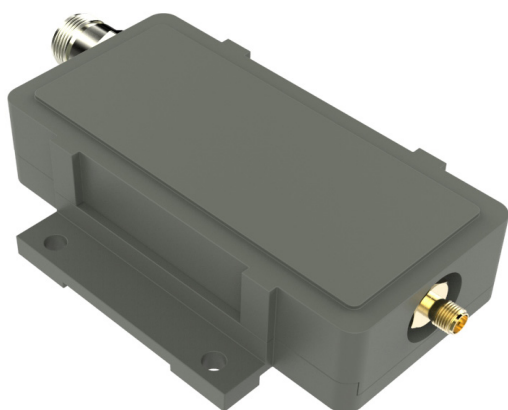


PLL BDC 3.40-4.80 GHz



3.40-4.80 GHz to L-Band BDC (Block Down Converter)



The C-Band PLL block down converter is intended for receiving C-Band transmissions within the frequency range 3.40 to 4.80 GHz. Fixed gain configurable between 0 dB and 50 dB (factory set). It's normally used together with an external C-band low noise amplifier.

RF input is SMA female. IF output is standard L-Band inverted spectrum via N-, F- or SMA- connector. Options include customized LO, customized gain, separate DC power input and separate input for the external 10 MHz reference.

Features

- **Internal Interference mitigating filters**
- **Low phase noise to meet DVB-S2X VSAT profile**
- **Choose between Internal Ref. or External Ref. input models**
- **Compact size and light weight**
- **Wide operating temperature range**
- **For outdoor use, IP 67 classed**
- **Low profile to fit 1U for build-in applications**
- **LNB-Link / Versa-Link for Fiber optic RF link**

TECHNICAL SPECIFICATIONS

MODEL:	C-BDC 5.15 S	C-BDC 5.15 E	C-BDC 5.15 B	C-BDC 5.25 C	C-BDC 5.75 W	C-BDC 5.75 U	C-BDC 5.95 U
Input Frequency	3.625-4.200 GHz	3.400-4.200 GHz	3.700-4.200 GHz	3.800-4.200 GHz	3.600-4.800 GHz	4.500-4.800 GHz	4.500-4.800 GHz
LO Frequency	5.15 GHz	5.15 GHz	5.15 GHz	5.25 GHz	5.75 GHz	5.75 GHz	5.95 GHz
Output Frequency	1525 -950 MHz	1750 - 950 MHz	1450 - 950 MHz	1450 - 1050 MHz	2150 - 950 MHz	1250 - 950 MHz	1450 - 1150 MHz
Internal RF filters	>40dB @ <3.2 GHz 15dB @ 3.4 GHz 15dB @ 4.4 GHz >40dB @ >4.5 GHz	>40dB @ <3.0 GHz 20dB @ 3.2 GHz 15dB @ 4.4 GHz >40dB @ >4.5 GHz	>40dB @ <3.4 GHz 35dB @ 3.5 GHz 15dB @ 4.4 GHz >40dB @ >4.5 GHz	>40dB @ <3.5 GHz 35dB @ 3.5 GHz 15dB @ 4.4 GHz >40dB @ >4.5 GHz		>40dB @ <3.2 GHz 15dB @ 3.4 GHz 25dB @ 5.0 GHz >40dB @ >5.1 GHz	
Gain	By request, 0 dB to 50 dB in 5 dB steps (Factory programmable)						
Flatness (30 MHz)	±0.4 dB max.						
Flatness (full band)	±2 dB max.			±3 dB max.		±2 dB max.	
Noise Figure / Noise Temperature	3 dB / 289 K @ 50dB gain configuration (typ.), increasing to 20 dB / 28710 K @ 0 dB gain configuration						
Phase Noise	-40 dBc @ 10 Hz	-62 dBc @ 100 Hz	-80 dBc @ 1 kHz	-88 dBc @ 10 kHz	-95 dBc @ 100 kHz	-120 dBc @ ≥1MHz typ.	
Phase Noise, PLL 5.75 W	-62 dBc @ 100 Hz		-80 dBc @ 1 kHz	-83 dBc @ 10 kHz	-95 dBc @ 100 kHz	-120 dBc @ >1MHz typ.	
Image Rejection	40 dB min.						
Output P1dB	+15 dBm, +5 dBm @ 10 dB and below gain configuration typ.						
Output IP3	+25 dBm, +15 dBm @ 10 dB and below gain configuration typ.						
Output VSWR	2.1:1 max.						
Output Connector	F-type 75Ω / N-type 50Ω / SMA-type 50Ω						
Input Connector	SMA-type (female)						
Input VSWR	2.3:1 max.						
LO Leakage	-60 dBm @ RF input						
MODELS with Internal Reference	±1 ppm -40 to +60°C (±1.5 ppm -40 to +80°C), ±2.5 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 +18 V, 300-400 mA typ. Supplied through output connector						
Temperature Range	Storage and operating: -40 to +80°C						
Dimensions	127 x 80 x 30 mm (F- & SMA-connector), 133 x 80 x 30 mm (N-connector), for drawing, see www.smw.se						
Weight	330 g (F- & SMA-connector)			344 g (N-connector)			
Options	Customized LO and frequency ranges, customized gain, 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							

Rev.11-20-3H

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.