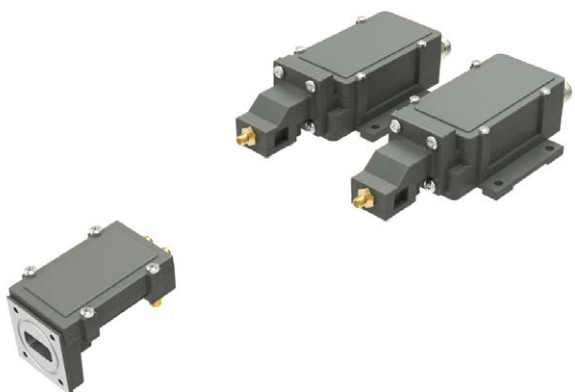




LNA / PLL BDC system for simultaneous reception of Low & High Ku-Band



The Dual PLL is the professional solution to receive the two bands simultaneously with high LO stability and low phase noise.

Any LO frequencies can be combined without spurioses e.g. Low band 10.0 GHz & High band 11.3 GHz.

The standard solution consists of one LNA and two Block Down converters including RF and DC cables 3-6 m. All parts are optimized, adjusted and tested as a complete matched unit.

Features

- Wide frequency range
- Choose between Internal Ref. or External Ref. input models
- Several LO frequencies
- Low phase noise
- High P1dB and IP3
- Wide operating temperature range
- BDC's for outdoor use
- Option Low profile to fit 1U for build-in applications

TECHNICAL SPECIFICATIONS

LO LOW	9.75 *)	10.00**)	10.25	10.50	10.60	10.75					
LO HIGH							10.60*)	10.75**)	11.20	11.25	11.30
Input Frequency	10.70–11.80 GHz	10.95–11.80 GHz	11.20–11.70 GHz	11.45–12.20 GHz	11.70–12.75 GHz	11.70–12.75 GHz	11.70–12.75 GHz	11.70–12.75 GHz	12.20–12.75 GHz	12.20–12.75 GHz	12.25–12.75 GHz
LO Frequency	9.75 GHz	10.00 GHz	10.25 GHz	10.50 GHz	10.60 GHz	10.75 GHz	10.60 GHz	10.75 GHz	11.20 GHz	11.25 GHz	11.30 GHz
Output Frequency	950–2050 MHz	950–1800 MHz	950–1450 MHz	950–1700 MHz	1100–2150 MHz	950–2000 MHz	1100–2150 MHz	950–2000 MHz	1000–1550 MHz	950–1500 MHz	950–1450 MHz
Gain	60 dB typ.										
Flatness	±0.4 dB max. within 30 MHz ±3 dB max. over band										
Noise Figure / Noise Temperature	1.0 dB / 75 K typ.										
Phase Noise	-35 dBc @ 10 Hz	-62 dBc @ 100 Hz	-75 dBc @ 1 kHz	-83 dBc @ 10 kHz	-93 dBc @ 100 kHz	-120 dBc @ ≥1MHz typ.					
Spurious Signals	-60 dBm typ. at the first spurious (e.g. 1000 MHz with LO 9.75 & 10.75 GHz)										
Image Rejection	40 dB min.										
Output P1dB	+15 dBm typ.										
Output IP3	+25 dBm typ.										
Output VSWR	BDC	2.0:1 typ.									
Output Conn.	LNA	SMA-connectors 50Ω									
Output Conn.	BDC	F-type 75Ω / N-type 50Ω / SMA-type 50Ω									
Input Waveguide	LNA	WR 75 / R 120. Flange 120.									
Input Conn.	BDC	SMA-connector 50Ω									
Input VSWR	LNA	2.3:1 typ.									
LO Leakage	-60 dBm @ waveguide input										
Internal Ref. Stability	±5 kHz -20 to +70°C (±10 kHz -40 to +80°C) ±10 kHz -20 to +70°C (±15 kHz -40 to +80°C)										
External 10 MHz Ref.	Level: -15 to +5 dBm. Input via output connector (with no ext. 10 MHz ref. present LO shifts -20 ppm)										
DC Input	LNA	+12 to +24 V, 40 mA typ. Input through separate SMA connector. DC feed from low band BDC									
DC Input	BDC	+12 to +24 V, 270 mA typ. Supplied through output connector									
Temperature Range	-40 to +80 °C										
Dimensions	LNA: 81 x 40 40 mm BDC: 142 x 99 x 70 mm (F-connector), 148 x 99 x 70 mm (N-connector) (for drawing, see www.smw.se)										
Weight	LNA: 124 g BDC: 329 g (F-connector), 345 g (N-connector)										
Miscellaneous	Enclosed O-ring, mounting screws (M4 x 10) 4 pcs. DC cable and HF cables										
Options	Customized LO freq., Gain, Variation, Input and Output frequency ranges, Separate DC input connector F-, N- or SMA-type, Cable lengths, Different HF cables, Waveguide isolators, Low profile to fit 1U.										

*) For this combination we recommend our WDL PLL LNB type E. **) For this combination we recommend our WDL PLL LNB type B.