

SMW Twin Digital / Twin PLL



Vertical & Horizontal simultaneously

For optimal performance and reliability in reception Vertical- and Horizontal polarizations you need individually tested and adjusted products. The professional Twin consists of two professional LNB Single band LNBs (option PLL-LNBs) assembled with one ortho mode transducer protected under a plastic cover. Available in different bands within the frequency range 10.7 - 12.75 GHz and different LOs between 9.75 - 11.475 GHz.

Comes as standard with very low phase noise, high cross polarization (Isolation), F- or N-connectors and two-years warranty. Options include High LO stability customized, low output VSWR 1.55:1 and RF-shielding.

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 was founded 1986 and, within Europe, is the oldest manufacturer of LNBs. In the standard product range we have DRO-LNBs, PLL-LNBs, LNAs, Block Downconverters (BDC), Up- & Down Converters, Quattro LNBs, Twin LNBs, Ortho mode transducers (OMT), Line Amplifiers and Feed horns.

Swedish Microwave is today one of the leading manufacturers of microwave components needed for satellite receiving equipment and other industrial products.

Specification SMW Twin Digital (PLL see PLL-sheet)

SMW Twin	Digital 9.75	Digital 10.0	Digital 10.05	Digital 10.6
Frequency range	10.7 - 11.8 GHz	10.95 - 12.1 GHz	11.0 - 12.1 GHz	11.7 - 12.75 GHz
LO frequency	9.75 GHz	10.0 GHz	10.05 GHz	10.6 GHz
Output frequency	950 - 2050 MHz	950 - 2100 MHz	950 - 2050 MHz	1150 - 2150 MHz

SMW Twin	Digital 10.75	Digital 11.2	Digital 11.25	Digital 11.3
Frequency range	11.7 - 12.75 GHz	12.2 - 12.75 GHz	12.2 - 12.75 GHz	12.25 - 12.75 GHz
LO frequency	10.75 GHz	11.2 GHz	11.25 GHz	11.3 GHz
Output frequency	950 - 2000 MHz	1000 - 1550 MHz	950 - 1500 MHz	950 - 1450 MHz

SMW Twin	Digital 11.475
Frequency range	12.5 - 12.75 GHz
LO frequency	11.475 GHz
Output frequency	1025 - 1275 MHz

General Specification

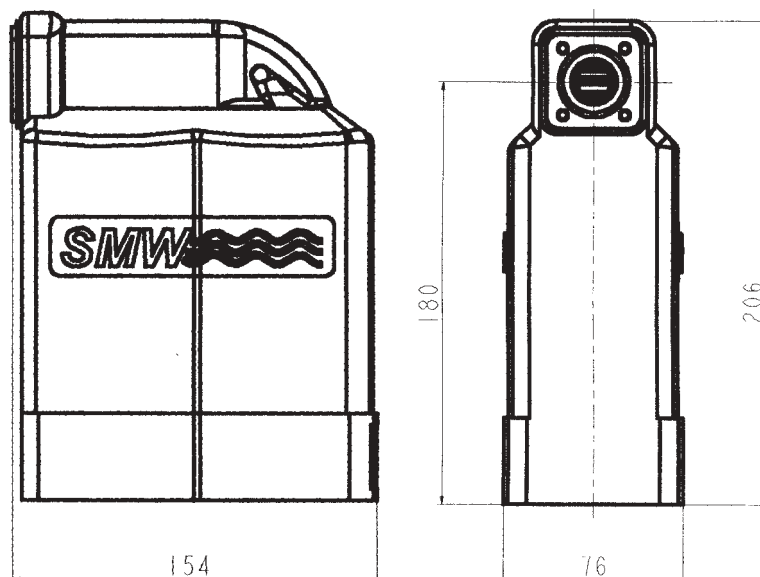
Noise figure, typical	0.9 dB
Gain	53 +/- 3 dB
Gain variation	+/- 0.3 dB within 30 MHz
LO stability (over temp.)	+/- 3 MHz
Phase noise typ	-75 dBc @ 1 kHz -85 dBc @ 5 kHz -95 dBc @ 10 kHz -110 dBc @ 100 kHz -120 dBc @ > 1 MHz
Input	Circular waveguide 18 mm
Cross polarization	31.5 dB min
LO radiation	-60 dBm
Image rejection	50 dB min.
1 dB gain compression point	+5 dBm
DC power	12-24V / 110 mA typ on each polarization
Operating temperature	-30 to +60° C
Output connectors (waterproof)	F-connectors 75 ohm or N-connectors 50 ohm
Output VSWR	2:1 max
Output VSWR	2:1 max
Weight	961 g (F-connectors), 990 g (N-connectors)

Options

High stability LO, +/- 1 MHz over temp. If you need better see sheet of PLL.
 High stability LO, +/- 1.5 MHz over temp.
 High stability LO, +/- 2 MHz over temp.
 Low gain
 Offset LO frequency, 9.75-12.5 GHz
 RF-shielding
 Low output VSWR, 1.55:1

Accessories

Adapter C120/C120, see Feedhorn leaflet
 Feedhorns, see Feedhorn leaflet



Box 230
 591 23 MOTALA, SWEDEN
 Tel. +46 141 21 61 35
 Fax. +46 141 21 52 24
 e-mail: info@smw.se
 Website: <http://www.smw.se>