



Ku:L-band Block Down Converter Shelf (Low)

This Low Ku-band (10.70 to 11.80 GHz) to L-band 2:1 redundant block down converter comprises of 3 BDC Modules , Swedish Microwave model BDC 9.75 N, with a 9.75 GHz LO and output range of 950 – 2050 MHz. The unit is housed in a 2U 19” shelf and also benefits from a -20dB BNC monitor port on the front panel for each of the 3 L-band outputs.



Pictures of front panel of Ku: L-band Block Down Converter Shelf

The three BDCs are supply current monitored so that once the monitoring levels are SET any deviation of current (outside a 20% window) will cause the standby BDC to switch in to replace the failing unit. The shelf operates in Manual or Auto or Remote modes and a key-switch on the front panel provides mode selection.



RESILIENCE

FLEXIBILITY

RF PERFORMANCE

Technical Specifications



• RF Parameters

Input Frequency Range	10.70 to 11.80 GHz
Local Oscillator Frequency	9.75 GHz
L-band output Frequency	950 to 2050 MHz
Gain	20 dB typical
Gain Variation	±0.4 dB within 30 MHz
Output Return Loss	>9 dB
Noise Figure	3 dB typical
1 dB Gain Compression Point (output)	±15 dBm typical
IP3	+25 dBm typical
LO Phase Noise typical	-75 dBc @ 1kHz -85 dBc @ 5 kHz -85 dBc @ 10 kHz -110 dBc @ 100 kHz -120 dBc @ >1 MHz
LO Stability (over temp.)	±25 kHz (option ± 10 kHz or ext. 10 MHz ref.)
Image Rejection	40 dB

• System Control

Local Control	Push Buttons
Remote Control	RS232/485 serial
Display	BDC & PSU condition LED's
Monitor Ports	-20dB 50Ω BNC on front panel for all 3 BDC outputs

For additional information or details, please contact us at:

• Environmental

Operating temperature	0 to 45°C
Location	Indoor use only
Storage Temperature	-20°C to +75°C
Humidity	85% Non-condensing

• Physical

RF Ports (Ku Band)	50Ω SMA (F)
RF Ports (L-band out)	50Ω N-type (F)

• Power

AC Power	85-264Vac 50/60Hz
PSU	Dual Redundant

• Key Features

Low Ku to L-band BDC

2:1 BDC Redundancy based on BDC current monitoring

Key switch on front panel

ETL Systems develop, design and manufacture specialist equipment for satellite ground stations. For a fuller description of the ETL product range, please visit our website. This range can be used as the basis to meet your specific demands.



ETL Systems Limited, Coldwell Radio Station, Madley, Hereford, England HR2 9NE
T +44 (0)1981 259020 F +44 (0)1981 259021 E info@etlsystems.com www.etlsystems.com

