



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

This High Ku-band (11.70 to 12.75 GHz) to L-band 2:1 redundant block down converter comprises of 3 BDC Modules , Swedish Microwave model BDC 10.75 N, with a 10.75 GHz LO and output range of 950 – 2000 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	11.70 to 12.75 GHz
Local Oscillator Frequency	10.75 GHz
L-band output Frequency	950 to 2000 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

• 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

High 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.



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