

L-Band Downconverter

L Band Frequency Downconverter

Model **US/BDC/L-70**



The state-of-the-art L-band downconverter

US/BDC/L-70 is specifically designed for the high data rate throughput in Earth Observation satellite missions. The minimum amplitude variation and group delay variation are provided **over the complete 700MHz** operational bandwidth resulting in the least BER degradation contribution. In addition, the **phase noise performance is the best available on the market.**





Description

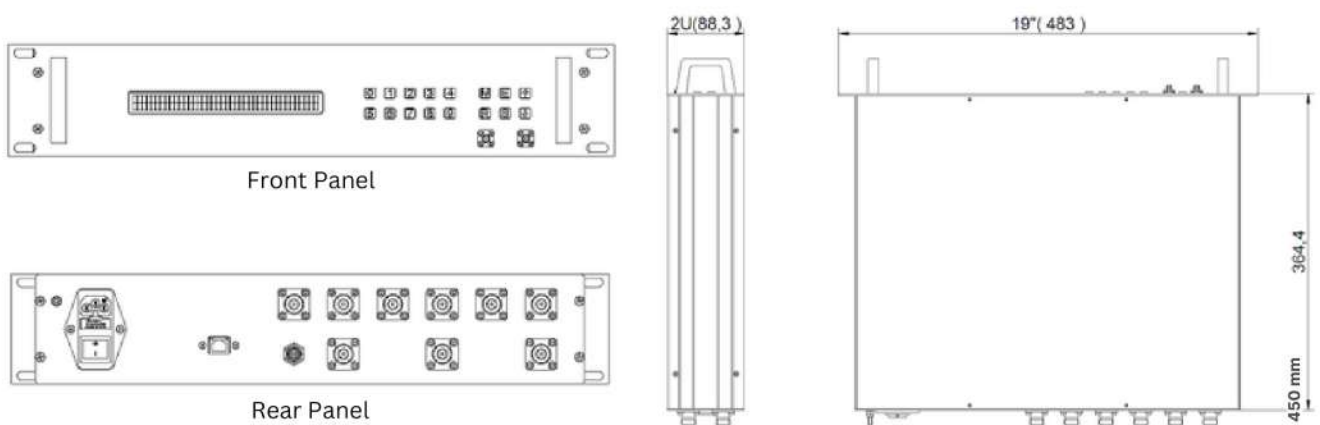
This downconverter is intended for use in professional applications in L band like satellite earth stations. US/BDC/L-70 includes high performance downconverter modules with low noise local oscillators, microprocessor based monitor & control circuitry. A front panel with control keys & status display & own AC / DC power supply. US/BDC/L-70 can be controlled from the front panel (manual control) & Ethernet (remote control).

Specifications

L-Band to 70 MHz Block Down Converter	
Input Frequency	950 to 2000 MHz
Type of Conversion	Double Conversion without Inversion
Frequency Sense	No Inversion
Frequency selection step size	1 KHz
Tunability	First LO in 1 KHz step
Input Level	+ 10 dBm
Output Frequency	70 MHz
3-dB Bandwidth (for IF O/P)	± 18 MHz
I/P or O/P Impedance	50 ohms
O/P 1dB Compression Point (P1)	+10 dBm min.
3rd Order Intercept Point	+ 20 dBm min.
Gain	30 dB
Gain Adjustment	within 25dB range in 0.5 dB steps
Gain Flatness	± 1.0 dB max over full Band
Input Return Loss	18 dB
Output Return Loss	15 dB
Spurious Outputs	Signal Related: - 60 dBc Signal Independent: - 80 dBm max.
Phase Noise	100 Hz away: -75 dBc / Hz 1 KHz away: -90 dBc / Hz 10 KHz away: -95 dBc / Hz as per IESS 308/309
Internal Reference Stability	1 x 10 ⁻⁷ over temperature range (0.1ppm)
10MHz reference	± 5 dBm
External Reference Input	5 / 10 MHz, 3±3 dBm, 50 ohms Internal/ External auto selection

L-Band to 70 MHz Block Down Converter	
Local & Remote Functions	Frequency selection & display 1st & 2nd LO monitor O/p LO lock indication Channel gain adjustment & display Reference Int./ext. Failures / Alarms Local / Remote
M & C Interface	TCP/IP-LAN (100 Mbps) at rear panel, RJ45 connector
Input Connectors	N type (F)
Output Connectors	BNC (F)
Input Power	230 VAC , 50 Hz \pm 10%
Input Voltage	24 VDC
Current Rating	500mA min for DC input
Operating ambient temperature	0 to 50 deg C
Humidity	Up to 95 %
Mechanical	19" Rack Mountable (2U Unit)
Colour	Light Grey (RAL 7035)
MTBF	> 50,000 Hours
MTTR	< 1 hour

Online Drawings



Ordering Information

US/BDC/L-70 L-band Downconverter

Please contact UMAC for the variant that suits your needs.

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