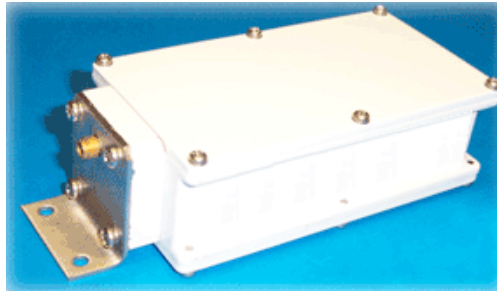


RADITEK

SATCOM

Ku Band BDC / PLL

Block Downconverter, Ku Band L-Band, Phase Lock



Advantages-

- ❖ Low Noise Figure
- ❖ Superior VSWR
- ❖ Excellent Phase Noise & Stability
- ❖ RF & IF filters for optimum results
- ❖ Tune for very low bandpass ripple
- ❖ Optimize Gain distribution
- ❖ Weather resistant O-ring sealed Connectors

Order Examples: RBDC-10.7-11.7-L-Sf-Sf-20dB-PLL-o8

Description: (Block Downconverter, 10.7-11.7GHz, L-Band, Sf, Sf, 20dB Gain, Phase Lock)

Frequencies in GHz			
LO	Input	Output	Bandwidth
9.75	10.70 to 11.70	0.95 to 1.95	1.000
10.00	10.95 to 11.70	0.95 to 1.70	0.750
10.15	11.70 to 12.20	1.55 to 2.05	0.500
10.25	11.20 to 11.70	0.95 to 1.45	0.500
10.50	11.45 to 11.95	0.95 to 1.45	0.500
10.50	11.45 to 12.20	0.95 to 1.70	0.750
10.60	11.70 to 12.20	1.10 to 1.60	0.500
10.75	11.70 to 12.20	0.95 to 1.45	0.500
11.25	12.20 to 12.75	0.95 to 1.50	0.550
11.30	12.25 to 12.75	0.95 to 1.45	0.500

Options –

- ❖ External DC Connector Options – F, N, BNC or Feedthrough
- ❖ External DC to Crystal for Rackmount
- ❖ Special Dual DC via output coax & ext DC port
- ❖ Custom Alarm for redundant switch

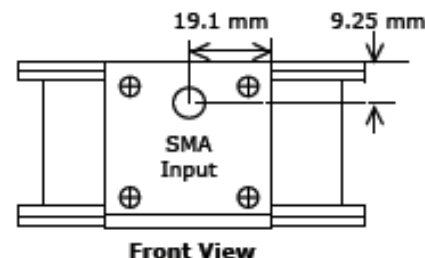
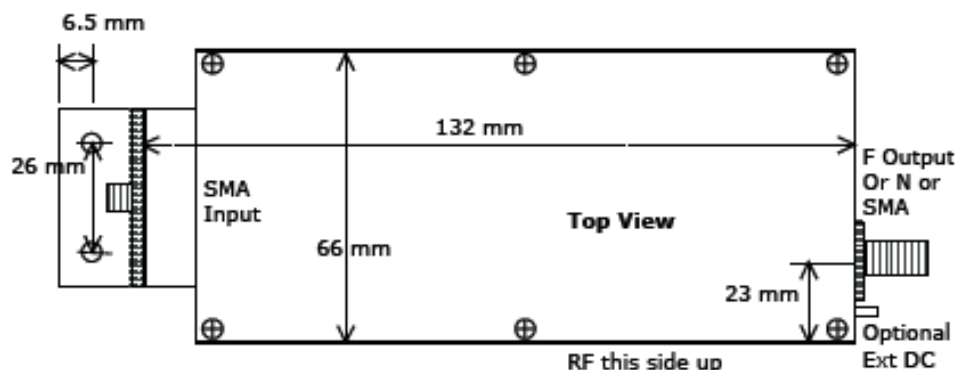
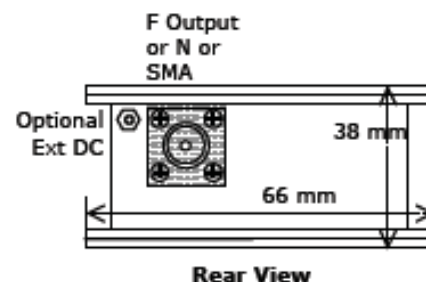
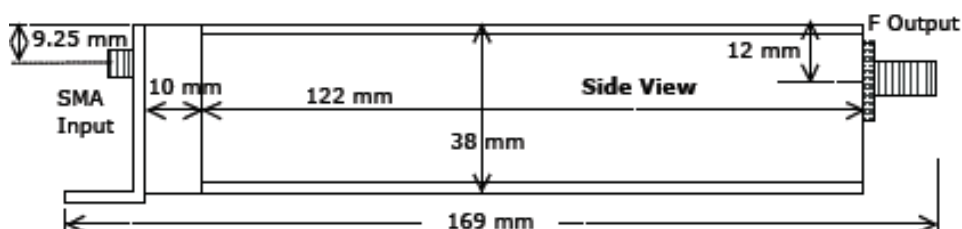
Specifications		Units
Noise Figure (typical)	6	dB
Ripple /27MHz Segment (maximum)	±0.5	dB (Max)
Input VSWR (Typical)	1.5	:1
LO Stability – over Temperature Range (maximum)	±30 ±3.0	kHz ppm
LO to IF Leakage	-45	dBm (typical)
LO to RF Leakage	-60	dBm (typical)
LO Phase Noise (@ 1KHz max)	-75	dBc/Hz
Gain options	20	dB
Gain Flatness over Frequency Range	±1	dB (max)
Gain Flatness per 40 MHz segment	±0.5	dB (max)
Internal Spurious Non Signal Related within IF Band	-95	dB
Internal Spurious Signal Related within IF Band	-85	dB
Output VSWR	1.5	:1 (typical)
Compression	+9	dBm (Min)
3 rd Order Intercept	±19	dBm (Min)

Block Downconverter Ku-Band L-Band, Phase Lock

code-o8

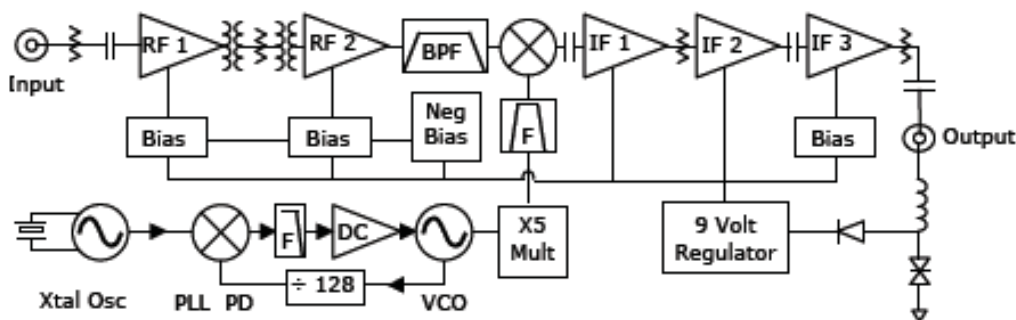
Specifications		Units
DC Input	12 to 24	VDC
DC Input (Nominal)	310	mA
Filtering (Over and reverse voltage protected)	Transient	
Size	169 x 66 x 38	mm
Weight	482	grams
Paint	Brilliant white enamel	
Operating Temperature	-40 to + 55	°C
Relative Humidity	Up to 100% condensation & frost	

Mechanical Drawing



Note - Optional external DC can be a side mounted F or BNC connector, or an end mount feedthrough c/w ground lug.

Block Diagram



Tolerance Table Metric (inch) (unless otherwise stated):

Hole diameter $\pm 0.1\text{mm}$, ($\pm 0.004"$)
Dimensions (w*h) $\pm 0.3\text{mm}$, ($\pm 0.015"$)
Dimensions (Coax Connector position) $\pm 0.3\text{mm}$, ($\pm 0.012"$)
Dimensions (hole position) $\pm 0.1\text{mm}$, ($\pm 0.004"$)

Machined surfaces

Flatness 0.025mm , (0.001inch)
Bend radius 0.8mm , ($0.031"$ or $1/32"$)