

AnaCom's RackSat series of rack-mounted up- and down-converters have all of the familiar features of AnaCom's outdoor converters in a compact, rack-mountable form. Ideally suited for SCPC, MCPC, DAMA, TDMA, and VoIP applications and designed to interface with any L-band modem, AnaCom RackSat converters may be used in a wide variety of communication networks.

## Features

- ✓ Available in upconverter and downconverter configurations.
- ✓ Superior phase noise
- ✓ Flexible, universal power supply and converter (protected from 0 volts through 250 volts AC)
- ✓ Variable Gain Up-Converter
- ✓ Internal 10 MHz reference
- ✓ Summary fault-status reporting including overheating, and converter failure. Robust 1+1 Redundant operation using AnaCom's Protection Switch.
- ✓ Built in test feature for improved maintainability and reduced dependence on external test equipment

## Built-In Test Facility

To improve and simplify maintenance routines, an external terminal (or computer) can be connected to monitor a number of critical parameters without use of additional test equipment. These include:

- ✓ Power supply voltages
- ✓ TX/RX synthesizer loop voltages
- ✓ Internal Temperature
- ✓ Alarm Details
- ✓ Onboard microprocessor for automatic temperature and aging compensation

## Benefits

- ✓ A family of products with significant commonality minimizes demands for spares and training
- ✓ These converters are designed for a minimum of maintenance. Periodic scheduled maintenance is not required.
- ✓ Rack-mountable installation. (1U)

## Compact, Functional Design

The RackSat upconverter includes a 70 or 140 MHz to RF up-converter, and a universal power supply. The RackSat downconverter includes a 70 or 140 MHz to L-band down-converter, and a universal power supply.

All of these are contained in a simple rack-mountable package, which provides excellent reliability in a wide range of functions.

## Flexible Applications

- ✓ Rural Telecommunications expansion
- ✓ Industrial networking
- ✓ LAN and WAN extensions
- ✓ Emergency link restoration
- ✓ Remote surveillance
- ✓ Broadcast
- ✓ Data distribution and collection
- ✓ Point-of-sales systems
- ✓ Video teleconferencing
- ✓ Conventional voice traffic



**RackSat Converter**  
(70 MHz or 140 MHz)

**SPECIFICATIONS**

		<b>C-Band family</b>		
<b>C-Band UPCONVERTER CHARACTERISTICS</b>	1 dB COMPRESSION POINT	8 dBm		
	TX NOMINAL GAIN	30 dB		
	TX GAIN RANGE	+6 / -20 dB variable in 1 dB steps via M&C		
	TX LEVEL FLATNESS	+/- 1.5 dBp-p max / 500 MHz		
	TX GAIN OVER TEMPERATURE	+/- 1.5 dB max		
	TX INPUT IF FREQUENCY	52 to 88 MHz (100 to 180 MHz optional)		
	TX INPUT IF IMPEDANCE	50 ohms (75 ohms optional)		
	TX INPUT IF LEVEL	-30 dBm for rated output with nominal gain		
	TX OUTPUT FREQUENCY	EC = 5.850 to 6.425 GHz PC = 6.425 to 6.725 GHz	SEC = 5.850 to 6.725 GHz RC = 5.975 to 6.475 GHz	XC = 6.725 to 7.025 GHz
	TX FREQUENCY STEP SIZE	1 MHz (XC Band 500 KHz step size)		
TX PHASE NOISE	-60 dBc/Hz max @ 100Hz -80 dBc/Hz max @ 10KHz		-70 dBc/Hz max @ 1KHz -90 dBc/Hz max @ 100KHz	
SPURIOUS	-65 dBc max out of band			
<b>C-Band DOWNCONVERTER</b>	RX INPUT FREQUENCY	EC = 3.625 to 4.200 GHz PC = 3.400 to 3.640 GHz	SEC = 3.400 to 4.200 GHz RC = 3.650 to 4.150 GHz	XC = 4.500 to 4.800 GHz
	RX FREQUENCY STEP SIZE	1 MHz (XC Band 500 KHz step size)		
	RX OUTPUT FREQUENCY	52 to 88 MHz (100 to 180 MHz optional)		
	RX GAIN	85 to 100 dB		
	RX OUTPUT IMPEDENCE	50 ohms (75 ohms optional)		
		<b>Ku-Band family</b>		
<b>Ku-Band UPCONVERTER CHARACTERISTICS</b>	1 dB COMPRESSION POINT	4 dBm		
	TX NOMINAL GAIN	30 dB		
	TX GAIN RANGE	+6 / -20 dB variable in 1 dB steps via M&C		
	TX LEVEL FLATNESS	+/- 1.5 dBp-p max / 500 MHz		
	TX GAIN OVER TEMPERATURE	+/- 1.5 dB max		
	TX INPUT IF FREQUENCY	52 to 88 MHz (100 to 180 MHz optional)		
	TX INPUT IF IMPEDANCE	50 ohms (75 ohms optional)		
	TX INPUT IF LEVEL	-30 dBm for rated output with nominal gain		
TX OUTPUT FREQUENCY	Ku = 14.0 to 14.50 GHz	Eku = 13.75 to 14.25 GHz	SEKu = 13.75 to 14.50 GHz	
TX PHASE NOISE	-60 dBc/Hz max @ 100Hz -80 dBc/Hz max @ 10KHz		-70 dBc/Hz max @ 1KHz -90 dBc/Hz max @ 100KHz	
SPURIOUS	-65 dBc max out of band			
<b>Ku-Band DOWNCONVERTER</b>	RX INPUT FREQUENCY	10.95 - 12.75 GHz		
	RX OUTPUT FREQUENCY	52 to 88 MHz (100 to 180 MHz optional)		
	RX GAIN	20 to 45 dB		
	RX OUTPUT IMPEDENCE	50 ohms (75 ohms optional)		
<b>ENVIRONMENTAL</b>	TEMPERATURE	-10 to +55°C operational -50 to +75°C storage		
	HUMIDITY	95% at 45C		
	ALTITUDE	6500 meters (21,325 ft)		
	VIBRATION	1.0 g random operational, 2.5 g random survival		
	SHOCK	10 g operational, 40 g survival		
<b>POWER &amp; DIMENSIONS</b>	TYPICAL POWER CONSUMPTION (VA)	50		
	PRIME POWER RECOMMENDATION	110/220 VAC 100W		
	WEIGHT	9 lbs. / 4 kg.		
	UNIT SIZE:	19" x 13.875" x 1.719" (48.26 x 35.24 x 43.66) [1U]		

\*all specifications subject to change

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