

AnaCom's series of C-band ELSAT<sup>®</sup> Block-Upconverters (BUC) are available in transmitter output levels up to 400 Watts, in single or redundant configurations. These BUCs are ruggedly built for continuous outdoor duty in all types of environments. They are especially suitable for SCPC, MCPC, and DAMA applications.

The upconverter, power amplifier, monitor and control and power supply are included in a single enclosure and the only cabling required to the indoor equipment are IF cables. An ovenized, high stability crystal oscillator is used to lock the TX synthesizer. Additional temperature and aging compensation are provided by an onboard microprocessor.

## Features

- ✓ Built in test facilities for improved maintainability and reduced dependence on external test equipment
- ✓ No indoor equipment is needed
- ✓ Frequency agile radio equipment.
- ✓ Superior phase noise
- ✓ Flexible, universal power supply

## Built In Test Equipment

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:

- ✓ Transmitter power output level
- ✓ TX IF level
- ✓ Power supply voltages
- ✓ TX synthesizer loop voltages
- ✓ Internal Temperature
- ✓ Alarm Details

Controllable functions from the terminal include:

- ✓ TX frequency and gain (*ON/OFF feature*)

## Benefits

- ✓ "Last Touch" controls allow for remote configuration or local (*manual*) configuration
- ✓ Flash memory means that the BUC always powers up with exactly the same operating conditions as when it last powered off (*or was turned off*)
- ✓ Comprehensive maintenance features for operational effectiveness and minimum outages.
- ✓ Simple installation.

## Comprehensive Monitor & Control

The ELSAT<sup>®</sup> BUC's Monitor & Control feature allows you to monitor and control the BUC on the same M&C bus with most indoor equipment such as modems and multiplexers. The Monitor & Control system can be used in combination with the unit's internal metering function to monitor operational parameters.

The M&C can be accessed remotely via-

Serial protocols:

- ✓ RS-232
- ✓ RS-485
- ✓ FSK
- ✓ Supervisor 9

Ethernet protocols:

- ✓ HTTP
- ✓ Telnet
- ✓ SNMP
- ✓ Supervisor 9

## Compact, Functional Design

The upconverter, power amplifier, monitor and control and power supply are included in a single enclosure. The only cabling required to the indoor equipment are IF and power. An optional ovenized, high stability crystal oscillator can be used to lock the TX synthesizer. Additional temperature and aging compensation are provided by an onboard microprocessor.



# ELSAT® BUC

## C-band Series

## SPECIFICATIONS

	10W	20W	30W	40W	50W	60W	70W	80W	100W	125W	150W	180W	200W	300W	350W	400W	
<b>TRANSMIT CHARACTERISTICS</b>	1 dB COMPRESSION POINT (dBm)	40	43	44.8	46	47	47.8	48.5	49	50	51	51.8	52.6	53	54.8	55.4	56
	TX GAIN	66	69	70.8	71	73	73.8	74.5	75	76	77	77.8	78.6	79	80.4	81.4	82
	TX GAIN RANGE	10 dB variable in 1 dB steps via M&C															
	TX LEVEL FLATNESS	6 dBp-p max / 500 MHz															
	TX GAIN OVER TEMPERATURE	+/- 2dB max															
	TX INPUT IF FREQUENCY	EC = 950 to 1525 MHz						SEC = 950 to 1825 MHz						LMI-EC = 950 to 1650 MHz			
	TX INPUT IF IMPEDANCE	50 ohms (75 ohms optional)															
	TX INPUT IF LEVEL	-25 dBm for rated output with nominal gain															
	TX OUTPUT FREQUENCY	EC = 5.850 to 6.425 GHz						SEC = 5.850 to 6.725 GHz						LMI-EC = 5.725 to 6.425 GHz			
		PC = 6.425 to 6.725 GHz						RC = 5.975 to 6.475 GHz						XC = 6.725 to 7.025GHz			
TX PHASE NOISE	-60 dBc/Hz max @ 100Hz						-70 dBc/Hz max @ 1KHz						-80 dBc/Hz max @ 10KHz				
	-90 dBc/Hz max @ 100KHz						-100 dBc/Hz max @ 1MHz										
INTERMOD	-33 dBc max (2 carriers, each 9 dB backoff from P1dB rating)																
SPURIOUS	-55 dBc max out of band																
<b>REFERENCE</b>	Requirements	Provided on TXIF line by L-band modem															
	FREQUENCY	10 MHz (sine-wave)															
	INPUT POWER	-5 to +5 dBm (at input port)															
	PHASE NOISE	-125 dBc/Hz max @ 100Hz -135 dBc/Hz max @ 1KHz -140 dBc/Hz max @ 10KHz															
	INTERNAL REFERENCE OPTION	10 <sup>-8</sup> over rated temperature															
<b>SYSTEM</b>	ALARM RELAYS	FORM C for Summary Alarm; Isolated															
	POWER	100 to 250 VAC; 47 to 63 Hz								optional 48V DC							
	M&C	SNMP, HTTP, Telnet								Ethernet, RS-232, RS-485, FSK							
<b>ENVIRONMENTAL</b>	TEMPERATURE	-50 to +55°C operational -50 to +75°C storage															
	HUMIDITY	95% at 45C															
	ALTITUDE	6,500 meters (21,500 ft) max															
	RAIN	20 inches per hour															
	WIND	150 miles per hour															
	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)	125	229	280	390	394	398	570	572	762	1179	1179	1539	1539	2832	2832	2832
	PRIME POWER RECOMMENDATION	340	600	730	870	880	890	1200	1200	1600	2400	2400	3100	3100	6200	6200	6200
	WEIGHT (lbs.)	31	37	40	42	54	54	64	64	64	120	142	142	142	207	207	207
	(kg.)	14	17	18	19	24	24	29	29	29	54	64	64	64	94	94	94
	BUC - 10W	21.6" x 9.0" x 9.4" (549 x 229 x 238 mm)															
	SIZE: - 20W, 30W	21.6" x 9.0" x 10.3" (549 x 229 x 262 mm)															
	- 40W	21.6" x 9.0" x 11.4" (549 x 229 x 289 mm)															
- 50W, 60W	21.6" x 9.0" x 12.5" (549 x 229 x 317 mm)																
- 70W, 80W, 100W	21.6" x 13" x 11.2" (549 x 330 x 284 mm)																
- 125W, 150W, 180W, 200W	34.5" x 12.75" x 12.4" (876 x 324 x 315 mm)																
- 300W, 350W, 400W	34.5" x 25.5" x 12.36" (876 x 648 x 314 mm)																

\*all specifications subject to change

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