

AnaCom's series of C-band ELSAT[®] Block-Upconverters (BUCs) are designed for high-powered applications, featuring 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 lost power (*or was turned off*)
- ✓ Comprehensive maintenance features for operational effectiveness and minimum outages.
- ✓ Simple installation.

Comprehensive Monitor & Control

The ELSAT[®] 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-

Ethernet protocols:

- ✓ Internal Webpage
- ✓ Telnet
- ✓ SNMP
- ✓ AnaCom Supervisor 10

Serial protocols:

- ✓ RS-232
- ✓ RS-485
- ✓ AnaCom Supervisor 10

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

		80W	100W	125W	150W	180W	200W	300W	350W	400W	
TRANSMIT CHARACTERISTICS	1 dB COMPRESSION POINT (dBm)	49	50	51	51.8	52.6	53	54.8	55.4	56	
	TX GAIN	75	76	77	77.8	78.6	79	80.4	81.4	82	
	TX GAIN RANGE	25 dB variable in 0.1 dB steps via M&C									
	TX LEVEL FLATNESS	±0.75 dB max at constant temperature over any 40 MHz ±1.5 dB max at constant temperature over full band									
	TX GAIN OVER TEMPERATURE	±1.5 dB over full band									
	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 L.O.	EC = 4.9 GHz			SEC = 4.9 GHz			LMI-EC = 4.775 GHz			
	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			LMI-EC = 5.725 to 6.425 GHz XC = 6.725 to 7.025GHz			
TX PHASE NOISE	-63 dBc/Hz max @ 100Hz -93 dBc/Hz max @ 100KHz			-73 dBc/Hz max @ 1KHz -103 dBc/Hz max @ 1MHz			-83 dBc/Hz max @ 10KHz				
INTERMOD	-27 dBc max (2 carriers, each 6 dB backoff from P 1dB rating)										
SPURIOUS	-55 dBc max out of band										
REFERENCE	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 ⁻⁸ over rated temperature									
SYSTEM	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						
ENVIRONMENTAL	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										
POWER & DIMENSIONS	TYPICAL POWER CONSUMPTION (VA)	572	762	1179	1179	1539	1539	2832	2832	2832	
	PRIME POWER RECOMMENDATION	1200	1600	2400	2400	3100	3100	6200	6200	6200	
	WEIGHT (lbs.)	64	64	120	142	142	142	207	207	207	
	(kg.)	29	29	54	64	64	64	94	94	94	
	BUC SIZE:	- 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

8/7/15

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