AnaCom, Inc.

www.anacominc.com

ELSAT® BUC

X Band

30W to 70W

7.9 to 8.4 GHz

AnaCom's series of X-band ELSAT® Block-Upconverters (BUC) are available in transmitter output levels up to 70 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 equipmentl
- 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

X-Band Series

SPECIFICATIONS

		30W	50W	70W
TRANSMIT CHARACTERISTICS	1 dB COMPRESSION POINT (dBm)	44.8	47	48.5
	TX GAIN	69.8	72	73.5
	TX GAIN RANGE	20 dB variable in 1 dB steps via M&C		
	TX LEVEL FLATNESS	4 dBp-p max / 500 MHz		
	TX GAIN OVER TEMPERATURE	+/- 1.5 dB max		
	TX INPUT IF FREQUENCY	950 to 1450 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. FREQUENCY	6.95 GHz		
	TX OUTPUT FREQUENCY	7.9 to 8.4 GHz		
	TX FREQUENCY STEP SIZE	1 MHz M&C controlled		
	TX PHASE NOISE	-60 dBc/Hz max @ 100Hz -90 dBc/Hz max @ 100KHz	-70 dBc/Hz max @ 1KHz -100 dBc/Hz max @ 1MHz	-80 dBc/Hz max @ 10KHz
	INTERMOD	-25 dBc max (2 carriers, each 6dB backoff from P1dB 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	6500 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

		60W	80W	100W
POWER & DIMENSIONS	TYPICAL POWER CONSUMPTION (VA) PRIME POWER RECOMMENDATION	260 570	355 780	422 925
	WEIGHT (lbs.) (kg)	21.5 10	25 11	
	BUC SIZE:	17" x 6.3" x 9.2" (432 x 159 x 233mm)	17" x 6.3" x 10.6" (432 x 159 x 268mm)	

*all specifications subject to change 06/10/19 3297908

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