

AnaCom's pBUC Block Up-Converters provides the high output power reliability of our Baby BUC in a flatter package ideal for mobile and fly-away antennas, even in situations involving extreme temperatures and high vibrations. pBUCs are designed for continuous outdoor duty in all types of harsh environments. Ideally suited for SCPC, MCPC, DAMA, TDMA, and VoIP applications and designed to interface with any L-band modem, the pBUC may be used in a wide variety of communication networks.

AnaCom's pBUC features web-based and command-line access to Monitor and Control functions accessible via Ethernet, FSK, Telnet, RS-232- and RS-485, and device monitoring over SNMP.

Features

- ✔ Built in test capabilities for improved maintainability and reduced dependence on external test equipment
- ✔ No indoor RF equipment is needed
- ✔ Superior phase noise
- ✔ Flexible, universal DC power supply (AC optional)

Built In Test Capability

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 On/Off
- ✔ TX Gain

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 shut down*)
- ✔ Comprehensive maintenance features for operational effectiveness and minimum outages.
- ✔ Simple installation.

Comprehensive Monitor & Control

The pBUC'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.



pBUC

Ku-Band series

SPECIFICATIONS

	8W	16W	25W	32W	40W	50W
1 dB COMPRESSION POINT (dBm)	39	42	44	45	46	47
TX GAIN (Nominal)	64	67	69	70	71	72
TX GAIN RANGE	20 dB variable in 1 dB steps via M&C					
TX LEVEL FLATNESS	3 dBp-p max / 500 MHz					
TX GAIN OVER TEMPERATURE	± 1dB max					
TX INPUT IF FREQUENCY	Ku = 950 to 1450 MHz		EKu = 950 to 1450 MHz		SEKu = 950 to 1,700 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	Ku = 13.050 GHz		EKu = 12.800 GHz		SEKu = 12.800 GHz	
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 -90 dBc/Hz max @ 100KHz		-70 dBc/Hz max @ 1KHz -100 dBc/Hz max @ 1MHz		-80 dBc/Hz max @ 10KHz	
INTERMOD	-32 dBc max (2 carriers, each 9dB backoff from P1dB rating)					
SPURIOUS	-55 dBc max out of band					

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

ALARM RELAYS	FORM C for Summary Alarm; Isolated
POWER	48V DC optional external AC
M&C	SNMP, HTTP, Telnet Ethernet, RS-232, RS-485, FSK

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

	8W	16W	25W	32W	40W	50W
TYPICAL POWER CONSUMPTION (VA)	111	189	256	266	372	392
PRIME POWER RECOMMENDATION	220	380	500	532	750	784
WEIGHT	15.9 lbs. 7.2 kg					
BUC SIZE	12.6" x 10.3" x 4.4"					

*all specifications subject to change

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