

AnaCom's Baby Block Up-Converters (Baby BUCs) provide the small mounting size, high output power, and high reliability needed by most mobile and fly-away antennas, even in situations involving extreme temperatures and high vibrations. Baby BUCs 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 Baby BUC may be used in a wide variety of communication networks.

AnaCom's Baby BUC now features web-based and command-line access to Monitor and Control functions accessible via Ethernet, 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 Baby 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.



Baby BUC

C-band Series

SPECIFICATIONS

	10W	20W	30W	40W	50W	70W
1 dB COMPRESSION POINT (dBm)	40	43	44.8	46	47	48.5
TX GAIN	65	68	69.8	71	72	73.5
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		XC = 965 to 1265 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 XC = 6.725 to 7.025GHz		SEC = 5.850 to 6.725 GHz		PC = 6.425 to 6.725 GHz	
TX PHASE NOISE (EC, SEC)	-80 dBc/Hz max @ 100Hz -104 dBc/Hz max @ 100KHz		-86 dBc/Hz max @ 1KHz -127 dBc/Hz max @ 1MHz		-92 dBc/Hz max @ 10KHz	
TX PHASE NOISE (XC, PC)	-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 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	100 to 250 VAC; 47 to 63 Hz optional 48V DC
M&C	SNMP, HTTP, Telnet Ethernet, RS-232, RS-485

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

TYPICAL POWER CONSUMPTION (VA)	98	183	198	368	380	486
PRIME POWER RECOMMENDATION	160	312	396	736	760	972
WEIGHT (lbs.) (kg.)	18.35 8.3			23 10.4		
BUC SIZE	7.48" x 6.25" x 17" 190 x 159 x 406			8.9" x 6.35" x 17" 226 x 161 x 406		

*all specifications subject to change

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