Baby BUC

Ku

EKu

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, 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 AC power supply (DC 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:

V RS-232

- Internal Webpage
- ✓ Telnet

Serial protocols:

✓ AnaCom Supervisor 10

- ✓ SNMP
- ✓ 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 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 0.1 dB steps via M&C | | | | | | |
| TX LEVEL FLATNESS | 3 dBp-p max / 500 MHz | | | | | | |
| TX GAIN OVER TEMPERATURE | +/- 1.5 dB max | | | | | | |
| TX INPUT IF FREQUENCY | Ku = 950 to 1450 MHz EKu = 950 to 1450 MHz | | | | SEKu = 950 to | SEKu = 950 to 1,700 MHz | |
| TX INPUT IF IMPEDANCE | 50 ohms (75 ohm | ns optional) | | | | | |
| TX INPUT IF LEVEL | -25 dBm for rated | d output with nomi | nal 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 mo | dem | | | | |
| 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 te | em perature | | | | | |
| ALARM RELAYS | FORM C for Summary Alarm; Isolated | | | | | | |
| POWER | 100 to 250 VAC; 47 to 63 Hz optional 48V DC | | | | | | |
| M&C | SNMP, HTTP, Teli | net Ethern | et, RS-232, RS-485 | | | | |
| TEMPERATURE HUMIDITY ALTITUDE RAIN WIND VIRRATION | -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 operationa | al, 40 g survival | | | | | |
| TYPICAL POWER CONSUMPTION (VA) | 111 | 189 | 256 | 266 | 372 | 392 | |
| PRIME POWER RECOMMENDATION | 220 | 380 | 500 | 532 | 750 | 784 | |
| WEIGHT: 48V DC 110/220V AC | 14 lbs. (6 kg) 15 lbs. (7 kg) 15.5 lbs. (7 kg) 16.4 lbs. (7 kg) 17.4 lbs. (8 kg) 17.9 lbs. (8 kg) | | | 17.5 lbs. (8 kg) 19.9 lbs. (9 kg) | | | |
| BUC SIZE: 48V DC | 13.3" x 6.3" x 7.4" | | | | 13.3" x 6.3" x 8.4" | | |

110/220V AC

13.3" x 6.3" x 9.4"

13.3" x 6.3" x 8.4"