



5W Full 5.85-7.05 GHz C-Band BUC

KEY FEATURES

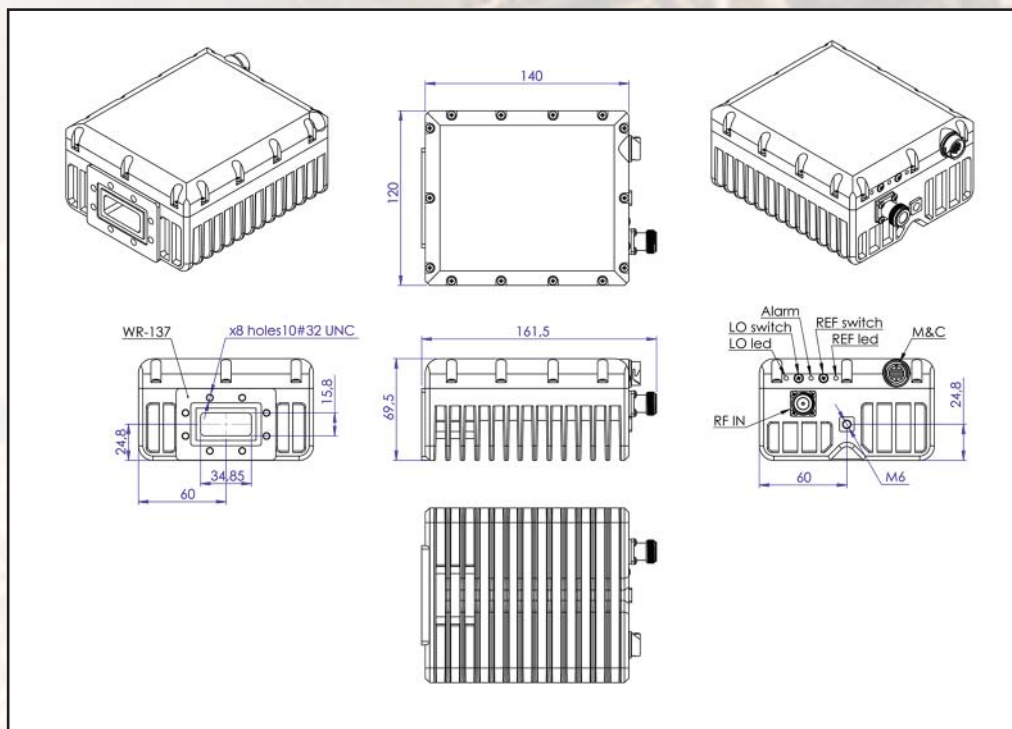
- ◆ Output frequency 5.850-7.05 GHz
- ◆ Double- L.O. (manually switchable 4.9 & 5.5 GHz)
- ◆ Lowest power consumption (19W at 37dBm)
- ◆ Advanced M&C interface - combined RS-232/485, Ethernet (HTTP and SNMP ver. 3) and optional FSK
- ◆ Auto-ranging 15-60 VDC powering option
- ◆ Digital temperature compensation
- ◆ Field-exchangeable (F/N) IF connector
- ◆ Internal 10MHz high stability reference (optional)
- ◆ L.O., alarm, lock LED
- ◆ Built-in redundancy option
- ◆ RoHS compliant

ABE5XCM / ABE5XCMF



This smallest and lightest 5W L-To C-Band Block Up Converter is based on GaN technology. It is designed to be mounted on the feed horn. High power efficiency resulting in the low current (1.5 amps @ 24 VDC). The unit covers all three C-Band sub-bands: Standard (5.850-6.425 GHz), Palapa (6.365-6.725 GHz) and Insat (6.725-7.05 GHz).

Mechanical Drawing





5W Full 5.85-7.05 GHz C-Band BUC

| TECHNICAL SPECIFICATIONS | |
|--|---|
| RF frequency | 5.850 to 7.05 GHz |
| Dual local oscillator | 4.90 and 5.50 GHz |
| IF frequency | 950 to 1,550 MHz |
| Output power | 5W (+37 dBm min.) |
| IF connector | N-type or F-type (field-exchangeable) |
| Power supply : auto-ranging via IF connector | +15 VDC ~ +60 VDC via IF cable 19W max. |
| Output interface | CPR 137 G |
| Gain | 60 dB nominal |
| IMD3 (two tones) | -26 dBc max. 2 signal 5 MHz apart at P-LINEAR |
| L.O. leakage | -45 dBm max |
| Spurious | -50 dBc max |
| Spectral regrowth (QPSK at 1.5x and OQPSK at 1.0x symbol rate offset with 2dB back-off from rated output power) | -30 dBc |
| Requirement for external reference: frequency input power | via IF cable 10 MHz (sine-wave) -5 to +5 dBm @ input port |
| TX Gain variation | ± 0.5 dB over 40 MHz |
| TX Gain stability over temperature range | ± 1.8 dB over full band ± 1.5 dB typ., ± 1.8 dB max. |
| Phase noise (Exceeds Intelsat's standard IESS308/309) | -53 dBc/Hz max. @ 10 Hz |
| | -63 dBc/Hz max. @ 100 Hz |
| | -73 dBc/Hz max. @ 1 KHz |
| | -83 dBc/Hz max. @ 10 KHz |
| | -93 dBc/Hz max @ 100 KHz |
| | -113 dBc/Hz max @ 1 MHz |
| Noise power density | Transmit Receive |
| | -66 dBm/Hz (max) -157 dBm/Hz (max) |
| M&C Interface | RS-232, RS-485 and Ethernet (HTTP and SNMP ver. 3) |
| Noise figure | 15 dB max |
| Input V.S.W.R. | 2 : 1 max |
| Output V.S.W.R. | 2 : 1 max. |
| Mute | Shut off the HPA if L.O. unlocked |
| Status LED | RED GREEN YELLOW YELLOW blinking |
| | Summary alarm All OK All OK standard L.O. 4.90 GHz All OK extended L.O. 5.50 GHz |
| Temperature range (ambient) | |
| operating | -40 deg C to +55 deg C |
| storage | -55 deg C to +85 deg C |
| Vibration and shock | Complies with MIL-STD-810E |
| Dimensions & housing | 140(L) x 120 (W) x 69.5 (H) mm 5.51" (L) x 4.72" (W) x 2.78" (H) |
| Weight | 1.2 kg (2.6 lbs) max |