



3W 5.850-6.425 GHz C-Band BUC

KEY FEATURES

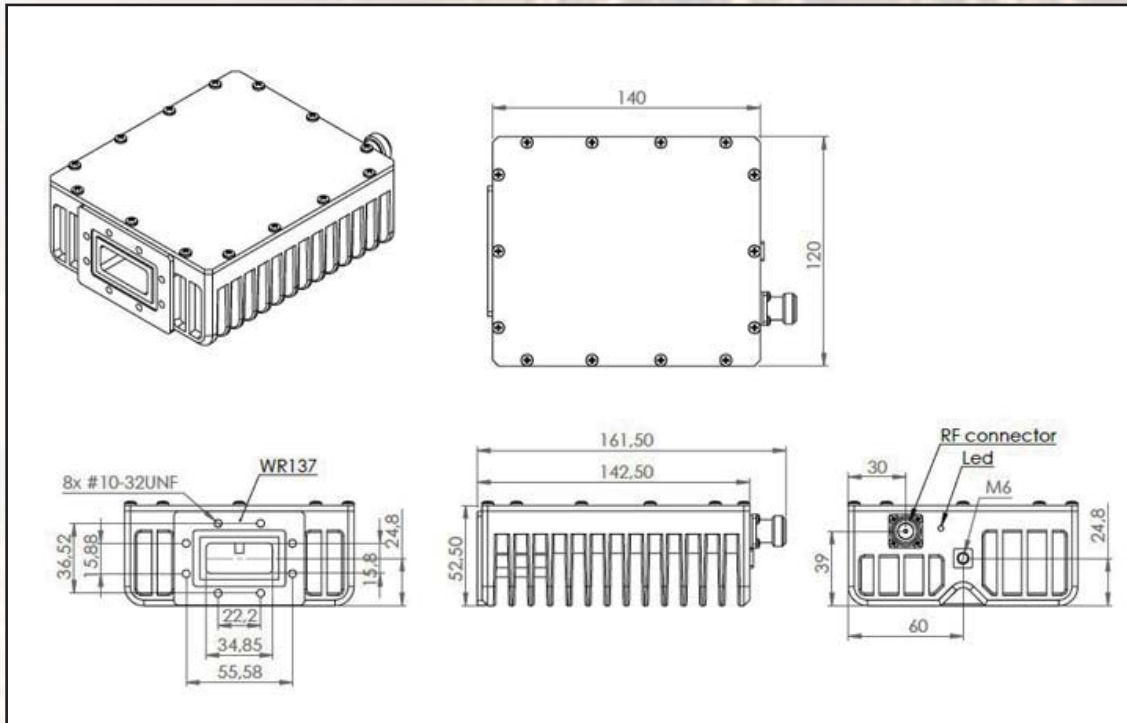
- ◆ Output frequency 5.850 GHz - 6.425 GHz
- ◆ Based on GaN technology which enables high efficiency, low power consumption and high reliability
- ◆ Local oscillator 4.90 GHz
- ◆ Incomparable low power consumption (17W max.)
- ◆ Auto-ranging powering option 15 - 60 VDC
- ◆ Digital temperature compensation
- ◆ L.O. lock and amplifier LEDs
- ◆ Field-exchangeable (F/N) IF connector
- ◆ Built-in redundancy option
- ◆ Internal 10MHz high stability reference (optional)
- ◆ RoHS compliant

ABE3SC / ABE3SCF



This smallest and lightest 3W L-To C-Band Block Up Converter is based on GaN technology. High power efficiency resulting in the lowest power consumption (0.4 amps max. @ 48 VDC). The unit covers Standard (5.850-6.425 GHz) C-Band frequencies.

Mechanical Drawing





3W 5.850-6.425 GHz C-Band BUC

| TECHNICAL SPECIFICATIONS | |
|---|--|
| RF frequency | 5.850 to 6.425 GHz |
| Local oscillator | 4.90 GHz |
| IF frequency | 950 to 1,525 MHz |
| Output power | 3W (+34.7 dBm min.), P-Linear 1.7W (+32.3 dBm min.) |
| IF connector | N-type or F-type (field-exchangeable) |
| Power supply : auto-ranging via IF connector | +15 VDC ~ +60 VDC, 17W max. (0.4amps @48VDC) |
| Output interface | CPR 137 G |
| Gain | 60 dB nominal |
| IMD3 | -26 dBc max. 2 signal 5MHz 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 ± 1.8 dB over full band |
| TX Gain stability over temperature range | ± 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 -66 dBm/Hz (max.) Receive -157 dBm/Hz (max.) |
| Noise figure | 15 dB max. |
| Input V.S.W.R. | 1.5 : 1 max. |
| Output V.S.W.R. | 1.5 : 1 max. |
| Mute | Shut off the BUC in case of L.O. unlocked |
| Status LED Amplifier L.O. 10MHz | RED GREEN GREEN GREEN GREEN blinking RED Summary alarm All OK All OK L.O. is set to 4.9 GHz External 10MHz reference Internal 10MHz reference No 10MHz reference detected |
| Temperature range (ambient) operating storage | -40 deg C to +55 deg C -55 deg C to +85 deg C |
| Vibration and shock | Complies with MIL-STD-810E |
| Altitude | Up to 23,000 feet |
| IP rating | IP67 |
| Dimensions & housing | 140 (L) x 120 (W) x 52.5 (H) mm 5.51"(L) x 4.72"(W) x 2.07" (H) |
| Weight | 1 kg (2.2 lbs) max. |