

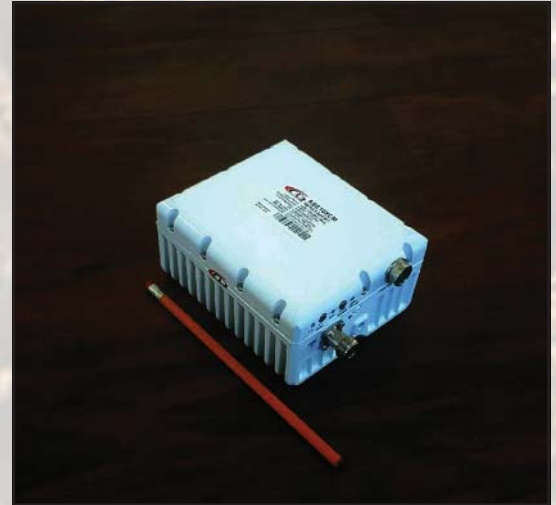


12W Full 5.85-6.725 GHz C-Band BUC

KEY FEATURES

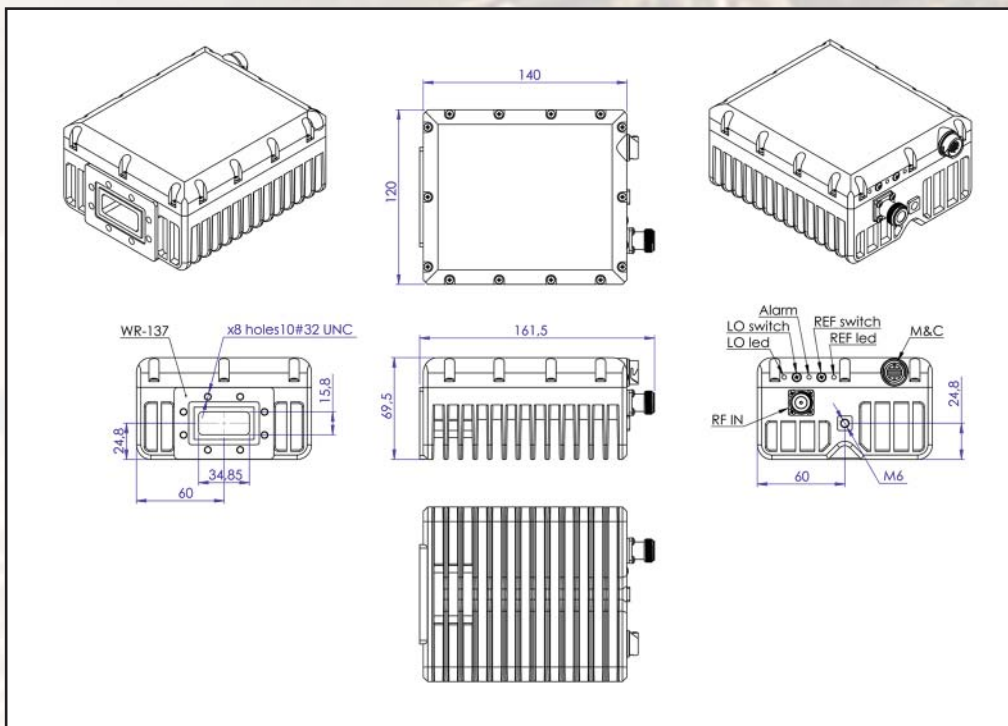
- ◆ Output frequency 5.850-6.725 GHz
- ◆ Based on GaN technology which enables high efficiency, low power consumption and high reliability.
- ◆ L.O. 4.9 GHz
- ◆ Incomparable low power consumption (44W max)
- ◆ Advanced M&C interface - combined RS-232/485, Ethernet (HTTP and SNMP ver.2 and 3) and optional FSK
- ◆ Auto-ranging 15-60 VDC powering option
- ◆ Digital temperature compensation
- ◆ Power and lock status LED
- ◆ Field-exchangeable (F/N) IF connector
- ◆ Internal 10MHz high stability 10^{-8} reference (optional)
- ◆ RoHS compliant

ABE12DCM / ABE12DCMF



This smallest and lightest 12W 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 C-Band sub-bands: Standard (5.850-6.425 GHz) and Palapa (6.365-6.725 GHz).

Mechanical Drawing





12W Full 5.85-6.725 GHz C-Band BUC

| TECHNICAL SPECIFICATIONS | | |
|---|---|--|
| RF frequency | | 5.850 to 6.725 GHz |
| Local oscillator | | 4.90 GHz |
| IF frequency | | 950 to 1,825 MHz |
| Output power | | 12W (+41 dBm min.) |
| IF connector | | N-type or F-type (field-exchangeable) |
| Power supply : auto-ranging via IF connector | | +15 VDC ~ +60 VDC, 44W max. |
| Output interface | | CPR 137 G |
| Internal 10MHz high stability reference | | 10 ⁻⁸ |
| Gain | | 65 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) |
| FSK | | Multiplexed on TX IFL, compatible with Compech and Paradigm |
| M&C Interface | | RS-232, RS-485 and Ethernet (HTTP and SNMP ver.2 and 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 | Summary alarm All OK All OK standard L.O. 4.90 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 |