

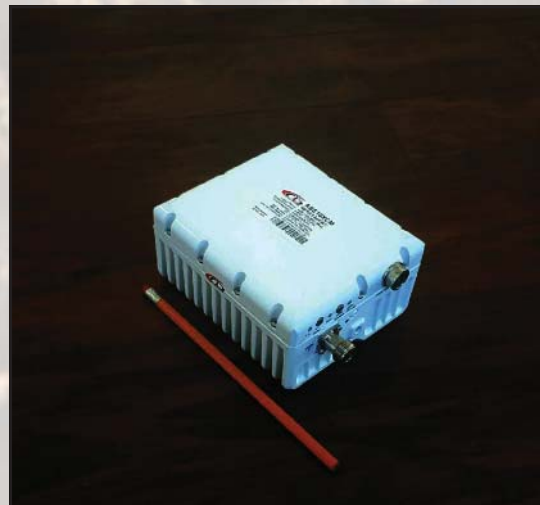


15W Full 5.85-7.025 GHz C-Band BUC

KEY FEATURES

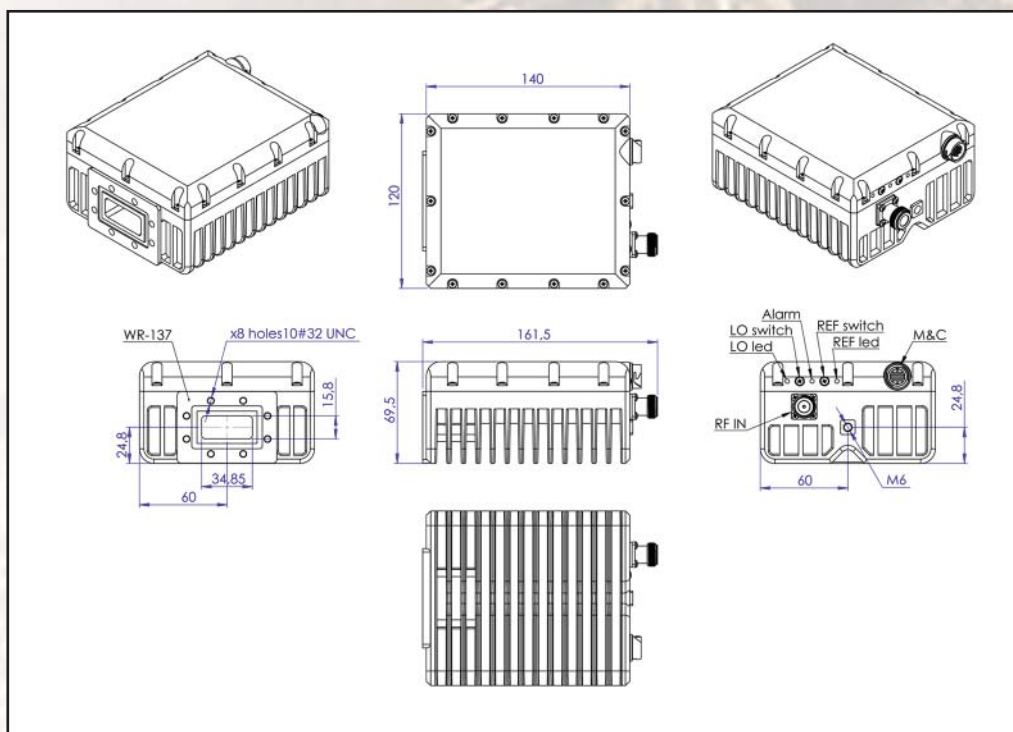
- ◆ Output frequency 5.850-7.025 GHz
- ◆ Based on GaN technology which enables high efficiency, low power consumption and high reliability.
- ◆ Double L.O. (switchable 4.9 & 5.2 GHz)
- ◆ Incomparable low power consumption (58W max)
- ◆ Advanced M&C - combined RS-232/485 / Ethernet (HTTP and SNMP ver. 2 & 3) / FSK (optional)
- ◆ 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 reference (optional)
- ◆ RoHS compliant
- ◆ Three-year warranty

ABE15XCM / ABE15XCMF



This smallest and lightest 15W 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 (6.725-7.025 GHz).

Mechanical Drawing





15W Full 5.85-7.025 GHz C-Band BUC

TECHNICAL SPECIFICATIONS

RF frequency	5.850 to 7.025 GHz
Dual local oscillator	4.90 and 5.20 GHz
IF frequency	950 to 1,825 MHz
Output power	15W (+41.8 dBm min.)
IF connector	N-type or F-type (field-exchangeable)
Power supply : auto-ranging via IF connector	+15 VDC ~ +60 VDC, 58W 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 ± 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 Receive	-66 dBm/Hz (max.) -157 dBm/Hz (max.)
M&C	RS-232/485 / Ethernet / FSK (optional)
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 HPA if L.O. unlocked
Status LED Amplifier L.O. 10MHz	RED GREEN GREEN GREEN blinking GREEN GREEN blinking RED Summary alarm All OK All OK standard L.O. 4.90 GHz All OK extended L.O. 5.20 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
IP rating	IP67
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.