

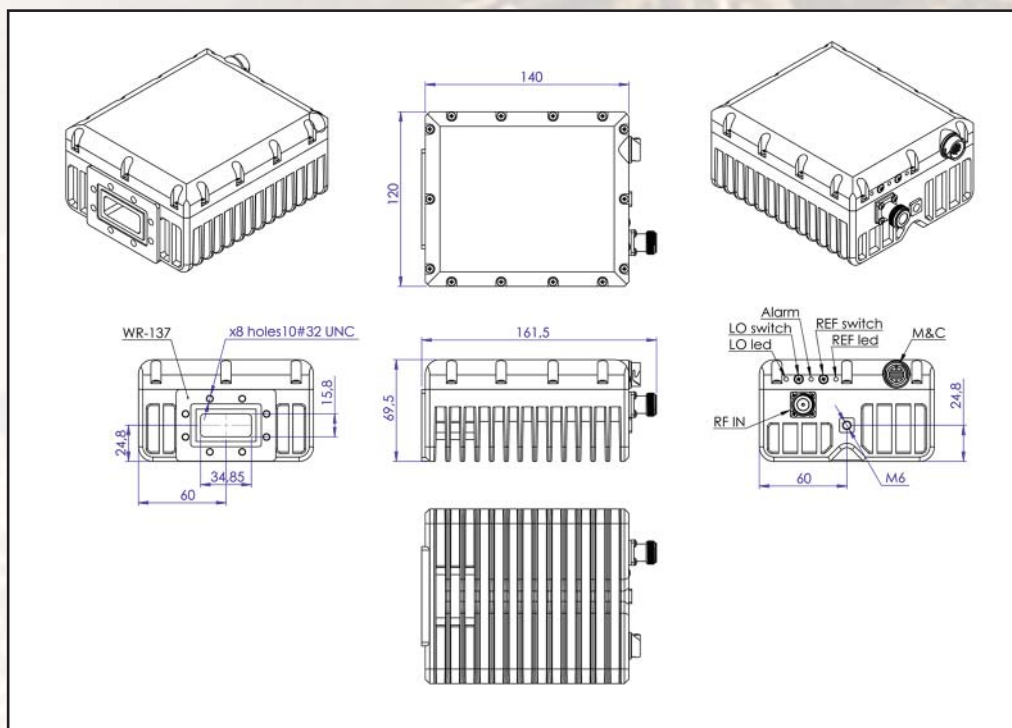


12W Full 5.85-7.05 GHz C-Band BUC

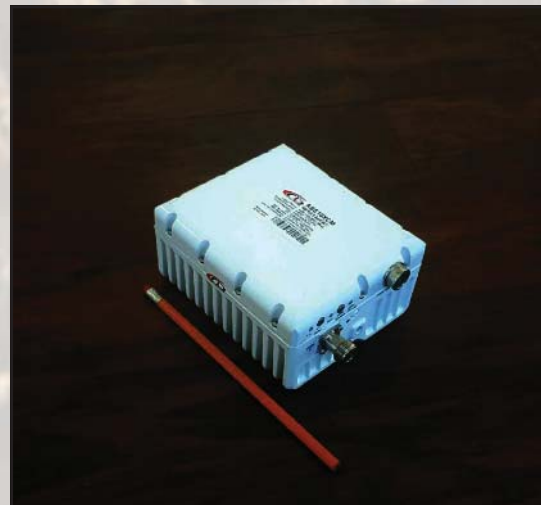
KEY FEATURES

- ◆ Output frequency 5.850-7.05 GHz
- ◆ Based on GaN technology which enables high efficiency, low power consumption and high reliability.
- ◆ Double- L.O. (manually switchable 4.9 & 5.5 GHz)
- ◆ Incomparable low power consumption (44W max)
- ◆ Advanced M&C interface - combined RS-232/485 + 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
- ◆ Three-year warranty

Mechanical Drawing



ABE12XCM / ABE12XCMF



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 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).



12W 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	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	68 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 and RS-485
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