

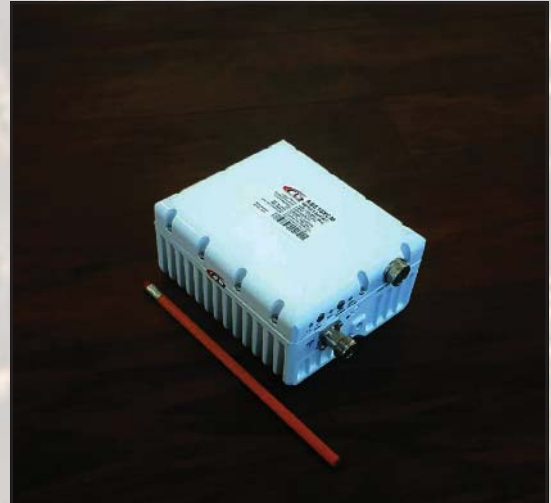


8W Full 5.85-7.025 GHz C-Band BUC

KEY FEATURES

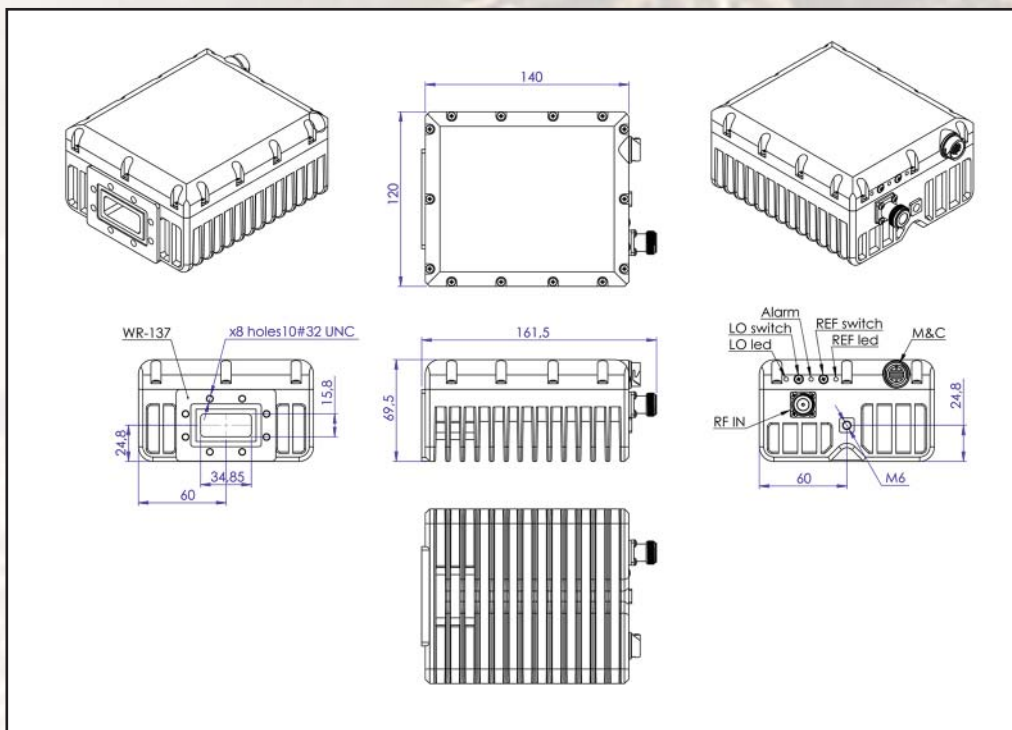
- ◆ Output frequency 5.850-7.025 GHz
- ◆ Based on GaN technology which enables high efficiency, low power consumption and high reliability.
- ◆ Double L.O. (switchable 4.9 & 5.2 GHz)
- ◆ Incomparable low power consumption (28W max)
- ◆ Advanced M&C interface - combined RS-232/485, Ethernet (HTTP and SNMP) 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 reference (optional)
- ◆ RoHS compliant
- ◆ Three-year warranty

ABE8XCM / ABE8XCMF



This smallest and lightest 8W 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





8W 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	8W (+39 dBm min.)
IF connector	N-type or F-type (field-exchangeable)
Power supply : auto-ranging via IF connector	+15 VDC ~ +60 VDC, 28W max.
Output interface	CPR 137 G
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	-66 dBm/Hz (max.)
Transmit	-157 dBm/Hz (max.)
Receive	
FSK	Multiplexed on TX IFL, compatible with Compech and Paradigm
M&C Interface	RS-232, RS-485 and Ethernet (HTTP and SNMP)
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	RED Summary alarm
	GREEN All OK
L.O.	GREEN All OK standard L.O. 4.90 GHz
	GREEN blinking All OK extended L.O. 5.20 GHz
10MHz	GREEN External 10MHz reference
	GREEN blinking Internal 10MHz reference
	RED 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.