



5W Full 5.85-7.05 GHz C-Band BUC

KEY FEATURES

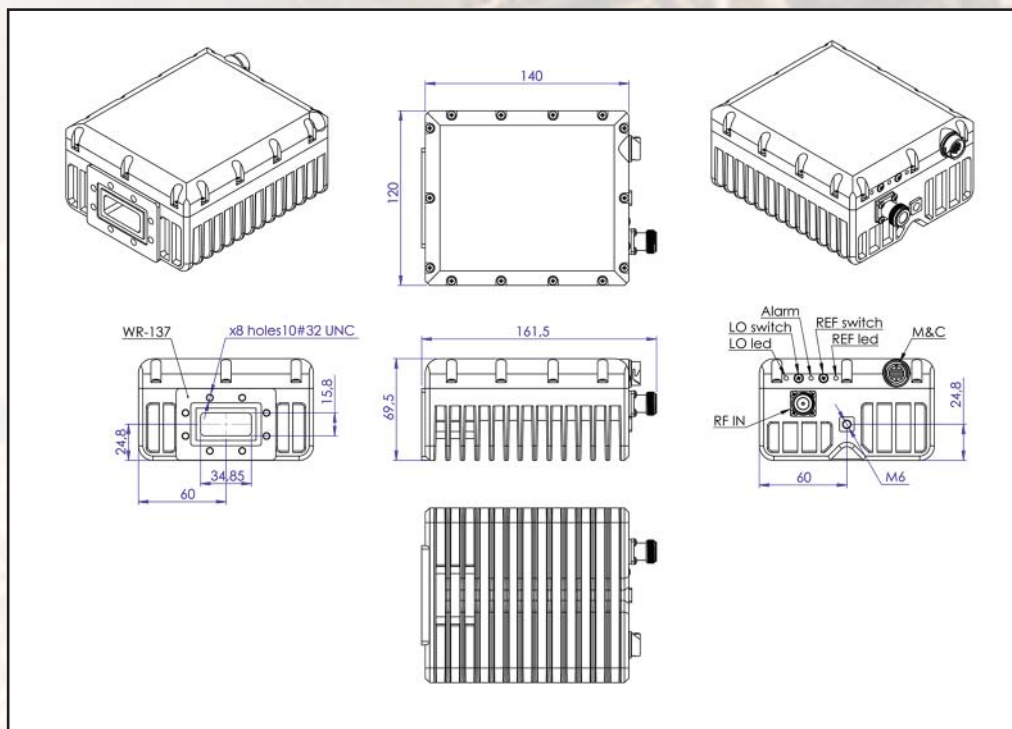
- ◆ Output frequency 5.850-7.05 GHz
- ◆ Double- L.O. (manually switchable 4.9 & 5.5 GHz)
- ◆ Lowest power consumption (19W at 37dBm)
- ◆ Advanced M&C interface - combined RS-232/485, Ethernet (HTTP and SNMP ver. 3) and optional FSK
- ◆ Auto-ranging 15-60 VDC powering option
- ◆ Digital temperature compensation
- ◆ Field-exchangeable (F/N) IF connector
- ◆ Internal 10MHz high stability 10^{-8} reference (optional)
- ◆ L.O., alarm, lock LED
- ◆ Built-in redundancy option
- ◆ RoHS compliant

ABA5XCM / ABA5XCMF



This smallest and lightest 5W 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 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).

Mechanical Drawing





5W 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	5W (+37 dBm min.)
IF connector	N-type or F-type (field-exchangeable)
Power supply : auto-ranging via IF connector	+15 VDC ~ +60 VDC via IF cable 19W max.
Output interface	CPR 137 G
Internal 10MHz high stability reference	10 ⁻⁸
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
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)
M&C Interface	RS-232, RS-485 and Ethernet (HTTP and SNMP ver. 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 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