

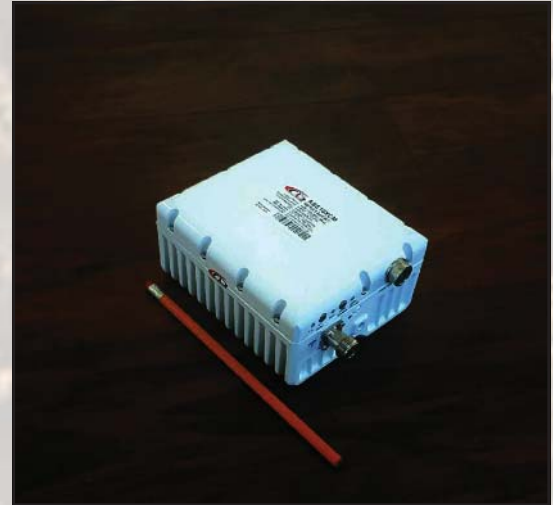


10W Full 5.85-6.725 GHz C-Band BUC

KEY FEATURES

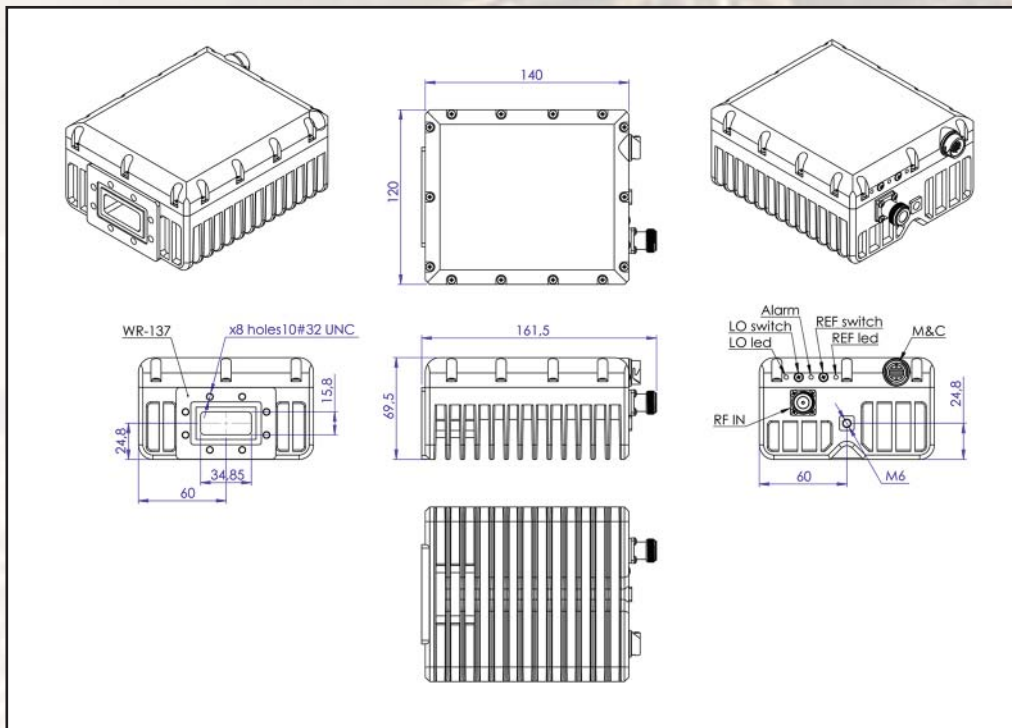
- ◆ Output frequency 5.850-6.725 GHz
- ◆ Based on GaN technology which enables high efficiency, low power consumption and high reliability.
- ◆ L.O. 4.9 GHz
- ◆ Incomparable low power consumption (35W max)
- ◆ Advanced M&C interface - combined RS-232/485, Ethernet (HTTP and SNMP ver.2 and 3) and optional 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

ABE10DCM / ABE10DCMF



This smallest and lightest 10W 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





10W 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	10W (+40 dBm min.)	
IF connector	N-type or F-type (field-exchangeable)	
Power supply : auto-ranging via IF connector	+15 VDC ~ +60 VDC, 35W 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:	via IF cable	
frequency	10 MHz (sine-wave)	
input power	-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	-53 dBc/Hz max. @ 10 Hz	
(Exceeds Intelsat's standard IESS308/309)	-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	-66 dBm/Hz (max.)
	Receive	-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.	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 L.O. is set to 4.90 GHz
10MHz	GREEN	External 10MHz reference
	GREEN blinking	Internal 10MHz reference
	RED	No 10MHz reference detected
Temperature range (ambient)	-40 deg C to +55 deg C	
operating	-55 deg C to +85 deg C	
storage		
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.	