



## 3W Full 5.85-7.025 GHz C-Band BUC

### KEY FEATURES

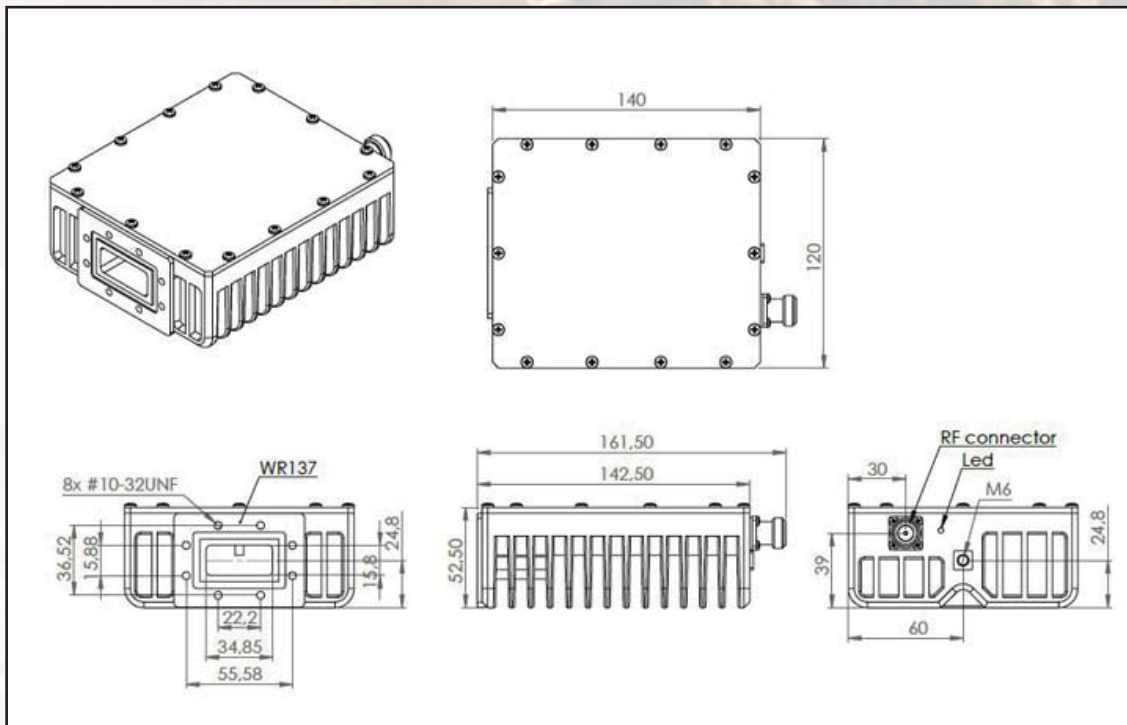
- ◆ Output frequency 5.850 GHz - 7.025 GHz
- ◆ Double L.O. (switchable 4.9 & 5.2 GHz)
- ◆ Based on GaN technology which enables high efficiency, low power consumption and high reliability
- ◆ Incomparable low power consumption (17W max.)
- ◆ Auto-ranging powering option 15 - 60 VDC
- ◆ Digital temperature compensation
- ◆ L.O. lock and amplifier LEDs
- ◆ Field-exchangeable (F/N) IF connector
- ◆ Built-in redundancy option
- ◆ Internal 10MHz high stability reference (optional)
- ◆ RoHS compliant
- ◆ Three-year warranty

### ABE3XC / ABE3XCF



This smallest and lightest 3W 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 @ 24VDC). The unit covers all three C-Band sub-bands: Standard (5.85-6.425 GHz), Palapa (6.365-6.725 GHz) and Insat (6.725-7.025 GHz).

### Mechanical Drawing





## 3W 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	3W (+34.7 dBm min.)	
IF connector	N-type or F-type (field-exchangeable)	
Power supply : auto-ranging via IF connector	+15 VDC ~ +60 VDC, 17W max.	
Output interface	CPR 137 G	
Gain	60 dB nominal	
IMD3	-26 dBc max. 2 signal 5MHz 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.)
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 BUC in case of 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	
Altitude	Up to 23,000 feet	
IP rating	IP67	
Dimensions & housing	140 (L) x 120 (W) x 52.5 (H) mm 5.51"(L) x 4.72"(W) x 2.07" (H)	
Weight	1 kg (2.2 lbs) max.	