



## 3W Ext. C-Band (5.85-6.725 GHz) BUC

### KEY FEATURES

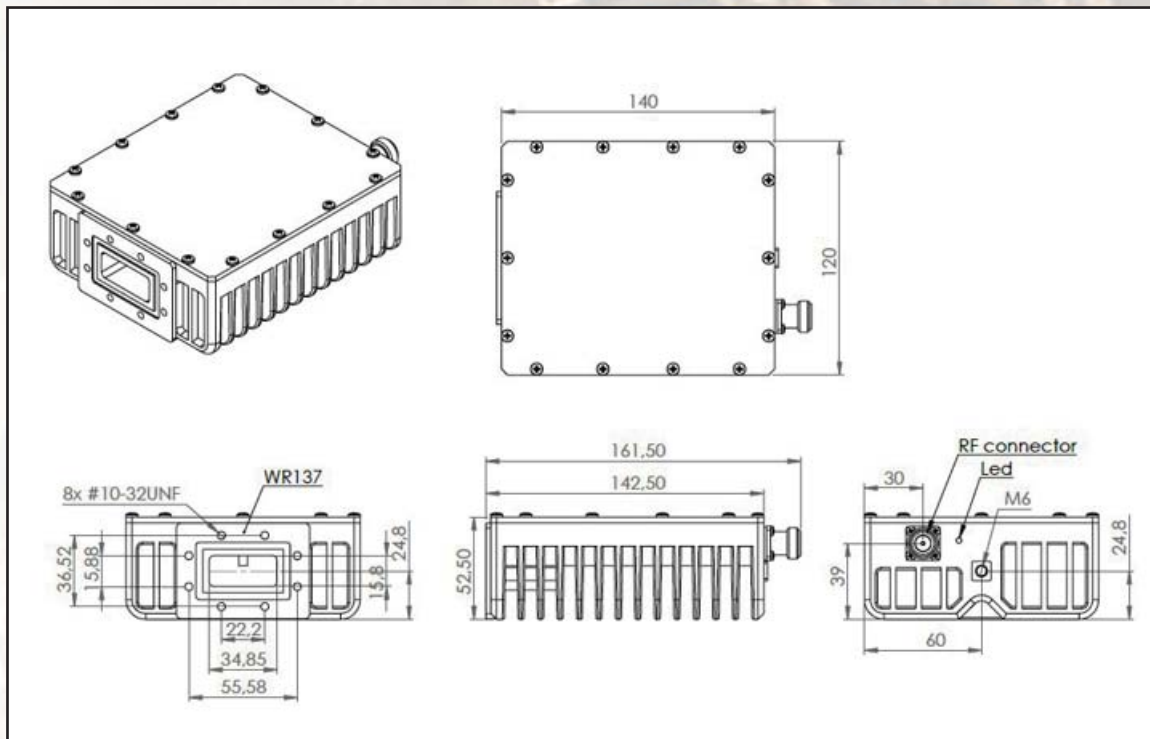
- ◆ Output frequency 5.850-6.725 GHz
- ◆ Incomparable low power consumption (17W at 34.7dBm)
- ◆ Auto-ranging 15 ~ 60 VDC powering
- ◆ Incomparable low phase noise
- ◆ Digital temperature compensation
- ◆ Field-exchangeable (F/N) IF connector
- ◆ Internal 10MHz high stability reference (optional)
- ◆ L.O., alarm, lock LED
- ◆ RoHS compliant

### ABE3DC / ABE3DCF



This smallest and lightest 3W L-To C-Band Block Up Converter is based on GaN technology. High power efficiency resulting in the lowest power consumption (0.4 amps max @ 48 VDC). The unit covers Standard (5.850-6.425 GHz) and Palapa (6.365-6.725 GHz) C-Band frequencies.

### Mechanical Drawing





# 3W Ext. C-Band (5.85-6.725 GHz) 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	3W (+34.7 dBm min.), P-Linear 1.7W (+32.3 dBm min.)
IF connector	N-type or F-type (field-exchangeable)
Power supply : auto-ranging via IF connector	+15 ~ +60 VDC via IF cable 17W max. (0.4amps @48VDC)
Output interface	CPR 137 G
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	<b>via IF cable</b> 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 HPA if L.O. unlocked
Status LED	RED GREEN YELLOW
	Summary alarm All OK All OK standard L.O. 4.90 GHz
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
Dimensions & housing	140(L) x 120 (W) x 52.5 (H) mm 5.51" (L) x 4.72" (W) x 2.06" (H)
Weight	1 kg (2.2 lbs) max