



## 12W Ext. C-Band (5.85-6.725 GHz) BUC

### KEY FEATURES

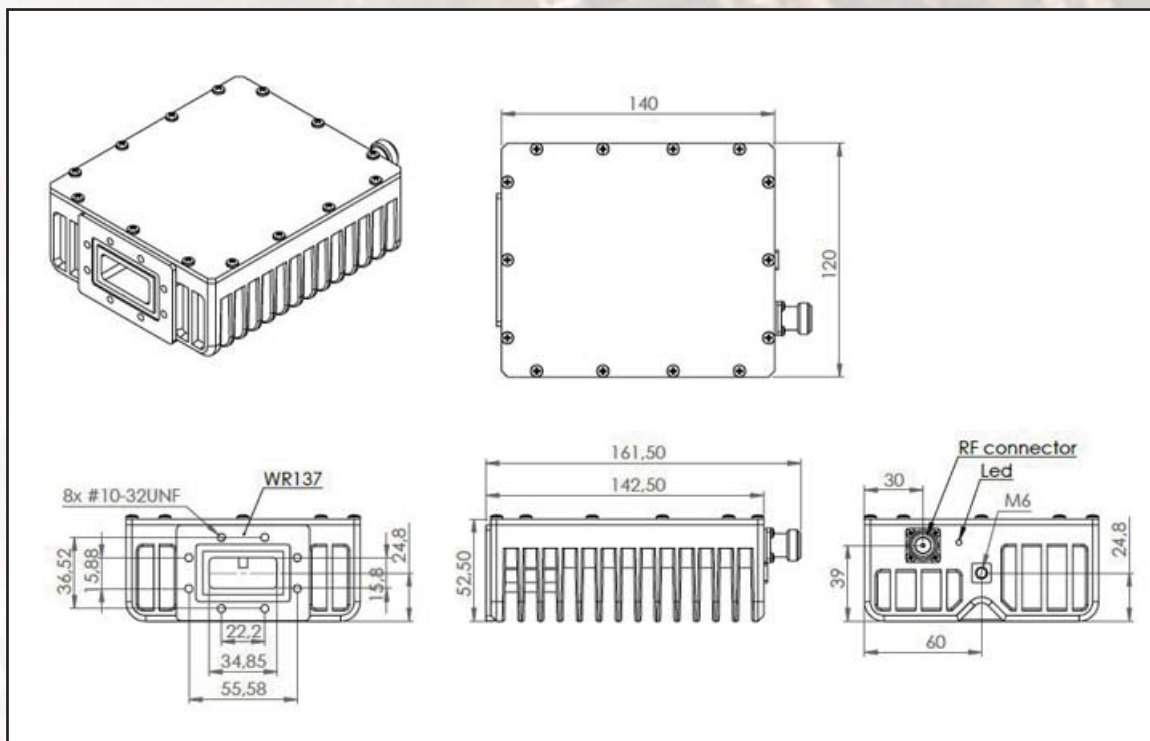
- ◆ Output frequency 5.850-6.725 GHz
- ◆ Incomparable low power consumption (42W at 41dBm)
- ◆ Auto-ranging 15 ~ 60 VDC powering
- ◆ Incomparable low phase noise
- ◆ Digital temperature compensation
- ◆ Field-exchangeable (F/N) IF connector
- ◆ Internal 10MHz high stability reference (optional)
- ◆ L.O., alarm, lock LED
- ◆ RoHS compliant

### ABE12DC / ABE12DCF



This smallest and lightest 12W L-To C-Band Block Up Converter is based on GaN technology. High power efficiency resulting in the lowest power consumption (1.6 amps max @ 24 VDC). The unit covers Standard (5.850-6.425 GHz) and Palapa (6.365-6.725 GHz) C-Band frequencies.

### Mechanical Drawing





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TECHNICAL SPECIFICATIONS		
<b>RF frequency</b>	5.850 to 6.725 GHz	
<b>Local oscillator</b>	4.90 GHz	
<b>IF frequency</b>	950 to 1,825 MHz	
<b>Output power</b>	12W (+40 dBm min.), P-Linear 6.4W (+38 dBm min.)	
<b>IF connector</b>	N-type or F-type (field-exchangeable)	
<b>Power supply : auto-ranging via IF connector</b>	+15 ~ +60 VDC via IF cable 42W max. (1.6amps @24VDC)	
<b>Output interface</b>	CPR 137 G	
<b>Gain</b>	68 dB nominal	
<b>IMD3 (two tones)</b>	-26 dBc max. 2 signal 5 MHz apart at P-LINEAR	
<b>L.O. leakage</b>	-45 dBm max	
<b>Spurious</b>	-50 dBc max	
<b>Spectral regrowth</b> (QPSK at 1.5x and OQPSK at 1.0x symbol rate offset with 2dB back-off from rated output power)	-30 dBc	
<b>Requirement for external reference:</b>	<b>via IF cable</b>	
frequency	10 MHz (sine-wave)	
input power	-5 to +5 dBm @ input port	
<b>TX Gain variation</b>	$\pm 0.5$ dB over 40 MHz	
<b>TX Gain stability over temperature range</b>	$\pm 1.8$ dB over full band $\pm 1.5$ dB typ., $\pm 1.8$ dB max.	
<b>Phase noise</b>  (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	
<b>Noise power density</b>	<b>Transmit</b> <b>Receive</b>	-66 dBm/Hz (max) -157 dBm/Hz (max)
<b>Noise figure</b>	15 dB max	
<b>Input V.S.W.R.</b>	2 : 1 max	
<b>Output V.S.W.R.</b>	2 : 1 max.	
<b>Mute</b>	Shut off the HPA if L.O. unlocked	
<b>Status LED</b>	<b>RED</b> <b>GREEN</b> <b>YELLOW</b>	Summary alarm All OK All OK standard L.O. 4.90 GHz
<b>Temperature range (ambient)</b>		
operating	-40 deg C to +55 deg C	
storage	-55 deg C to +85 deg C	
<b>Vibration and shock</b>	Complies with MIL-STD-810E	
<b>Dimensions &amp; housing</b>	140(L) x 120 (W) x 52.5 (H) mm 5.51" (L) x 4.72" (W) x 2.06" (H)	
<b>Weight</b>	1 kg (2.2 lbs) max	