



## 15W Ext. 5.85-6.725 GHz C-Band BUC

### KEY FEATURES

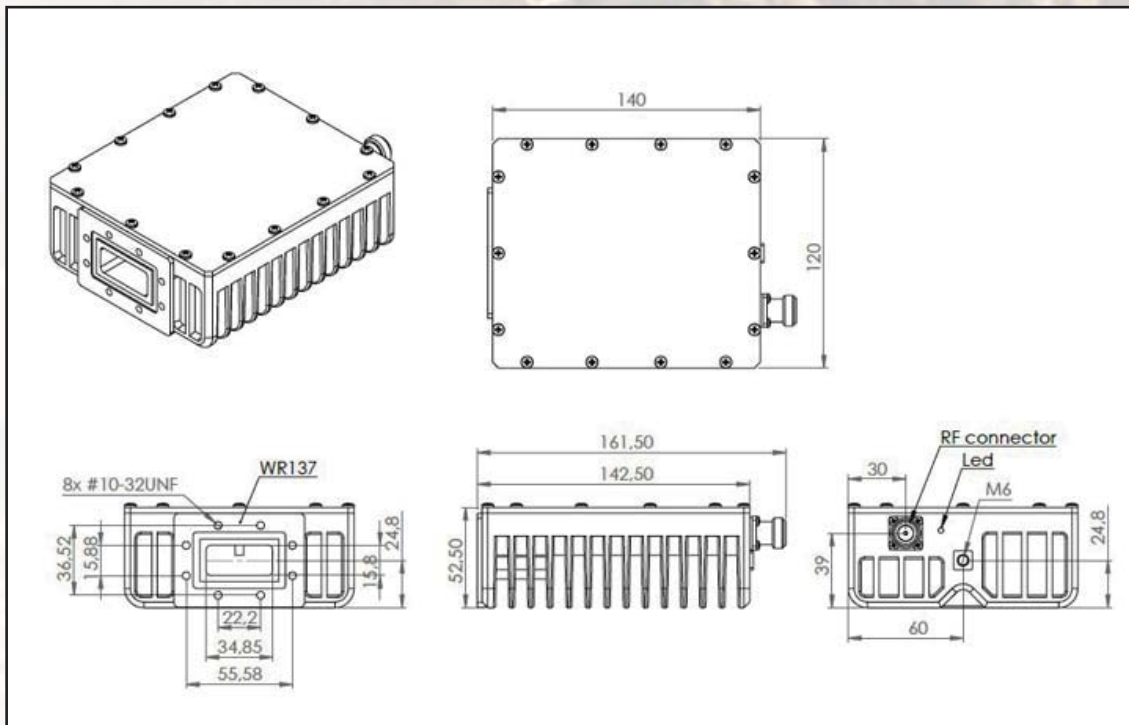
- ◆ Output frequency 5.850 GHz - 6.725 GHz
- ◆ Based on GaN technology which enables high efficiency, low power consumption and high reliability
- ◆ Local oscillator 4.90 GHz
- ◆ Incomparable low power consumption (56W max.)
- ◆ Auto-ranging powering option 15 - 60 VDC
- ◆ Digital temperature compensation
- ◆ L.O. lock and amplifier LEDs
- ◆ Field-exchangeable (F/N) IF connector
- ◆ Built-in redundancy option
- ◆ Internal 10MHz high stability reference (optional)
- ◆ RoHS compliant

### ABE15DC / ABE15DCF



This smallest and lightest 15W L-To C-Band Block Up Converter is based on GaN technology. High power efficiency resulting in the low current (<2.4 amps @ 24VDC). The unit covers Standard (5.85-6.425 GHz) and Palapa (6.365-6.725 GHz) C-Band frequencies.

### Mechanical Drawing





## 15W Ext. 5.85-6.725 GHz C-Band BUC

<b>TECHNICAL SPECIFICATIONS</b>	
<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>	15W (+41.8 dBm min.), P-Linear 7.8W(+38.9 dBm min.)
<b>IF connector</b>	N-type or F-type (field-exchangeable)
<b>Power supply : auto-ranging via IF connector</b>	+15 VDC ~ +60 VDC, 56W max.
<b>Output interface</b>	CPR 137 G
<b>Gain</b>	68 dB nominal
<b>IMD3</b>	-26 dBc max. 2 signal 5MHz 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> frequency input power	via IF cable 10 MHz (sine-wave) -5 to +5 dBm @ input port
<b>TX Gain variation</b>	± 0.5 dB over 40 MHz ± 1.8 dB over full band
<b>TX Gain stability over temperature range</b>	± 1.5 dB typ., ± 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> -66 dBm/Hz (max.) <b>Receive</b> -157 dBm/Hz (max.)
<b>Noise figure</b>	15 dB max.
<b>Input V.S.W.R.</b>	1.5 : 1 max.
<b>Output V.S.W.R.</b>	1.5 : 1 max.
<b>Mute</b>	Shut off the BUC in case of L.O. unlocked
<b>Status LED</b> <b>Amplifier</b>  <b>L.O.</b> <b>10MHz</b>	<b>RED</b> <b>GREEN</b> <b>GREEN</b> <b>GREEN</b> <b>GREEN blinking</b> <b>RED</b>  Summary alarm All OK All OK L.O. is set to 4.9 GHz External 10MHz reference Internal 10MHz reference No 10MHz reference detected
<b>Temperature range (ambient)</b> operating storage	-40 deg C to +55 deg C -55 deg C to +85 deg C
<b>Vibration and shock</b>	Complies with MIL-STD-810E
<b>Altitude</b>	Up to 23,000 feet
<b>IP rating</b>	IP67
<b>Dimensions &amp; housing</b>	140 (L) x 120 (W) x 52.5 (H) mm 5.51"(L) x 4.72"(W) x 2.07" (H)
<b>Weight</b>	1 kg (2.2 lbs) max.