



## 125W Ext. 5.85-6.725 GHz C-Band BUC

### KEY FEATURES

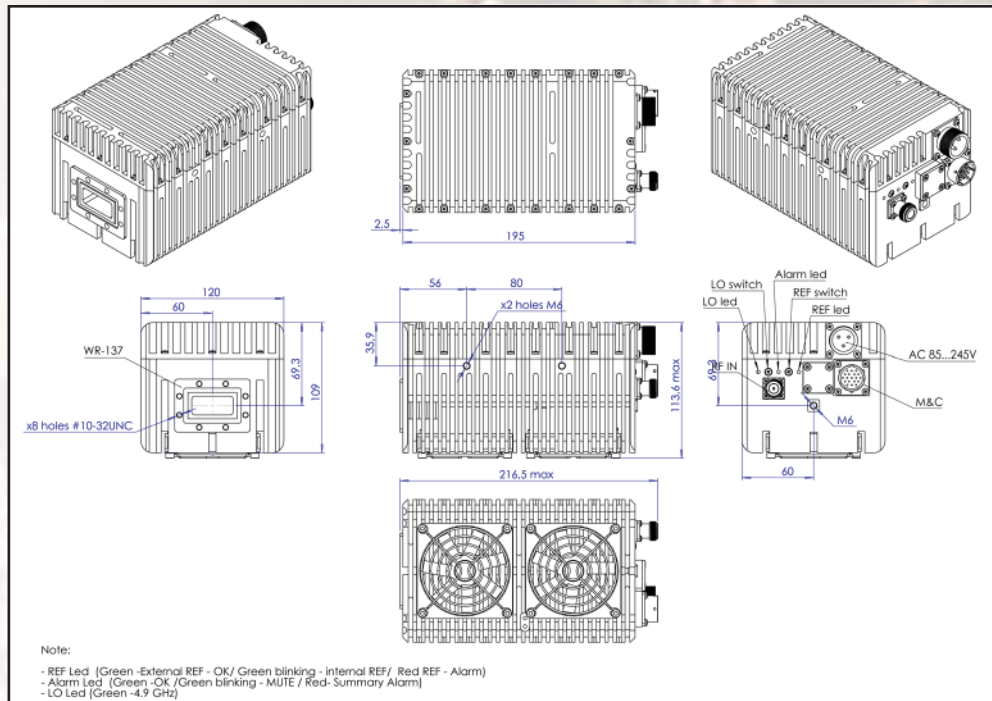
- ◆ Output frequency 5.850-6.725 GHz
- ◆ Based on GaN technology which enables high efficiency, low power consumption and high reliability.
- ◆ L.O. 4.9 GHz
- ◆ Incomparable low power consumption (468W max)
- ◆ Advanced M&C interface - combined RS-232/485, Ethernet (HTTP and SNMP ver. 3) and optional FSK
- ◆ Auto-ranging AC 85 - 245 VAC powering option
- ◆ Digital temperature compensation
- ◆ Power and lock status LED
- ◆ Field-exchangeable (F/N) IF connector
- ◆ Internal 10MHz high stability reference (optional)
- ◆ RoHS compliant

### ABD125DC / ABD125DCF



This smallest and lightest 125W L-To C-Band Block Up Converter is based on GaN technology. It is designed to be mounted on the feed horn. The unit covers C-Band sub-bands: Standard (5.850-6.425 GHz) and Palapa (6.365-6.725 GHz).

### Mechanical Drawing





## 125W Ext. 5.85-6.725 GHz C-Band BUC

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>	125W (+51 dBm min.), P-Linear 67.3W (+48.3 dBm min.)
<b>IF connector</b>	N-type or F-type (field-exchangeable)
<b>Power supply : auto-ranging via MS connector</b>	+85 ~ +245 VAC, 468W max.
<b>Output interface</b>	CPR-137 G
<b>Gain</b>	74 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> frequency input power	<b>via IF cable</b> 10 MHz (sine-wave) -5 to +5 dBm @ input port
<b>TX Gain variation</b>	$\pm 0.5$ dB over 40 MHz $\pm 1.8$ dB over full band
<b>TX Gain stability over temperature range</b>	$\pm 1.5$ dB typ., $\pm 1.8$ dB max.
<b>Phase noise</b>  (Exceeds Intelsat's standard IESS308/309)	-55 dBc/Hz max. @ 10 Hz -65 dBc/Hz max. @ 100 Hz -75 dBc/Hz max. @ 1 KHz -85 dBc/Hz max. @ 10 KHz -95 dBc/Hz max @ 100 KHz -115 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>FSK</b>	Multiplexed on TX IFL, compatible with Compech and Paradigm
<b>M&amp;C Interface</b>	RS-232, RS-485 and Ethernet (HTTP and SNMP ver.3)
<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>10MHz Reference LED</b>	<b>GREEN</b> <b>GREEN blinking</b> <b>RED</b>
<b>Alarm LED</b>	<b>GREEN</b> <b>GREEN blinking</b> <b>RED</b>
<b>L.O. LED</b>	<b>GREEN</b> 4.9GHz
<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>Dimensions &amp; housing</b>	195 (L) x 120 (W) x 113.6 (H) mm 7.67" (L) x 4.72" (W) x 4.47" (H)
<b>Weight</b>	3.36 kg (7.40 lbs) max