



## 100W Ext. C-Band (5.85-6.725 GHz) BUC

### KEY FEATURES

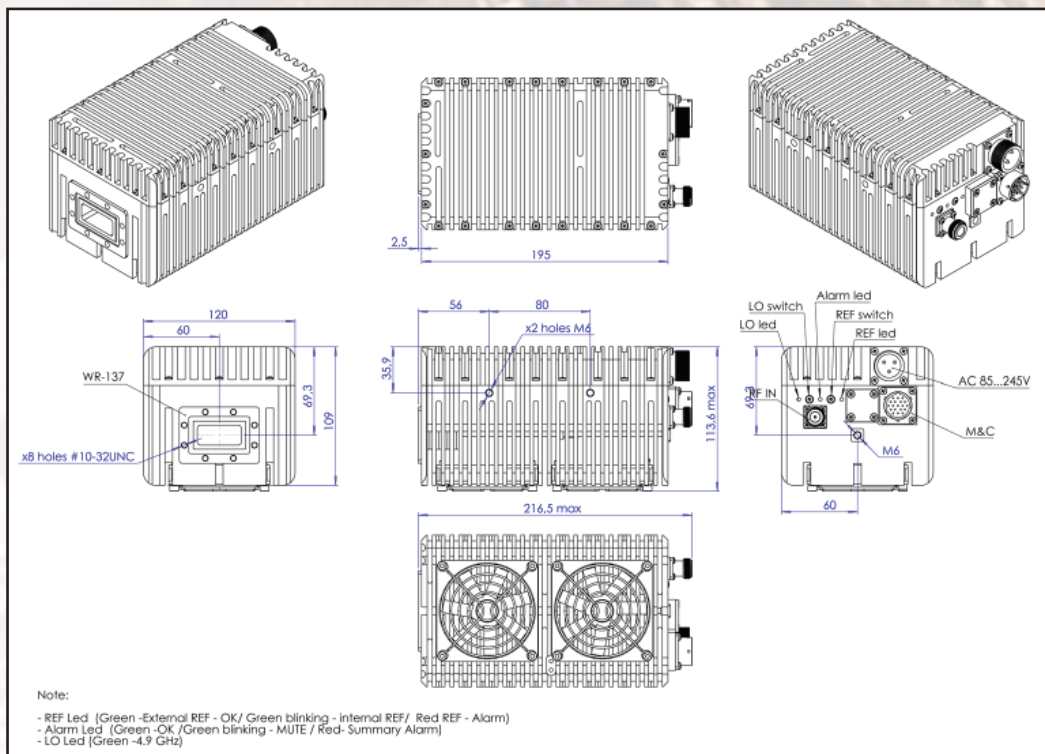
- ◆ Output frequency 5.85 GHz - 6.725 GHz
- ◆ Local oscillator 4.90 GHz
- ◆ Based on GaN technology which enables high efficiency, low power consumption and high reliability
- ◆ Incomparable low power consumption (397W max.)
- ◆ Auto-ranging powering option 85 - 245 VAC
- ◆ Digital temperature compensation
- ◆ Field-exchangeable (F/N) IF connector
- ◆ Internal auto-sensing and controllable 10MHz high stability reference (optional)
- ◆ Power and lock status LED
- ◆ Built-in redundancy option
- ◆ Advanced M&C - combined RS-232/485 and optional FSK, Ethernet control (HTTP and SNMP ver.2 and 3)
- ◆ RoHS compliant

### ABD100DC / ABD100DCF



This smallest and lightest 100W 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





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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>		100W (+50 dBm min.), 52.6W (+47.2 dBm min.) P-Linear
<b>IF connector</b>		N-type or F-type (field-exchangeable)
<b>Power supply : auto-ranging via MS connector</b>		+85 ~ +245 VAC, 397W max.
<b>Output interface</b>		CPR 137 G
<b>Gain</b>		70 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>		via IF cable
frequency		10 MHz (sine-wave)
input power		-5 to +5 dBm @ input port
<b>TX Gain variation</b>		± 0.5 dB over 40 MHz
<b>TX Gain stability over temperature range</b>		± 1.8 dB over full band ± 1.5 dB typ., ± 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>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>M&amp;C Interface</b>		RS-232 and RS-485, Ethernet (HTTP and SNMP ver.2 and 3)
<b>FSK</b>		Multiplexed on TX IFL, com. with Comtech/ Paradigm
<b>Mute</b>		Shut off the HPA if L.O. unlocked
<b>Status LED</b>		Summary alarm
<b>Amplifier</b>	<b>RED</b>	All OK
	<b>GREEN</b>	All OK L.O. is set to 4.9 GHz
<b>L.O.</b>	<b>GREEN</b>	External 10MHz reference
<b>10MHz</b>	<b>GREEN</b>	Internal 10MHz reference
	<b>GREEN blinking</b>	No 10MHz reference detected
	<b>RED</b>	
<b>Temperature range (ambient)</b>		-40 deg C to +55 deg C
operating		-55 deg C to +85 deg C
storage		
<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>		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.