



50W Full C-Band Block Up Converter

KEY FEATURES

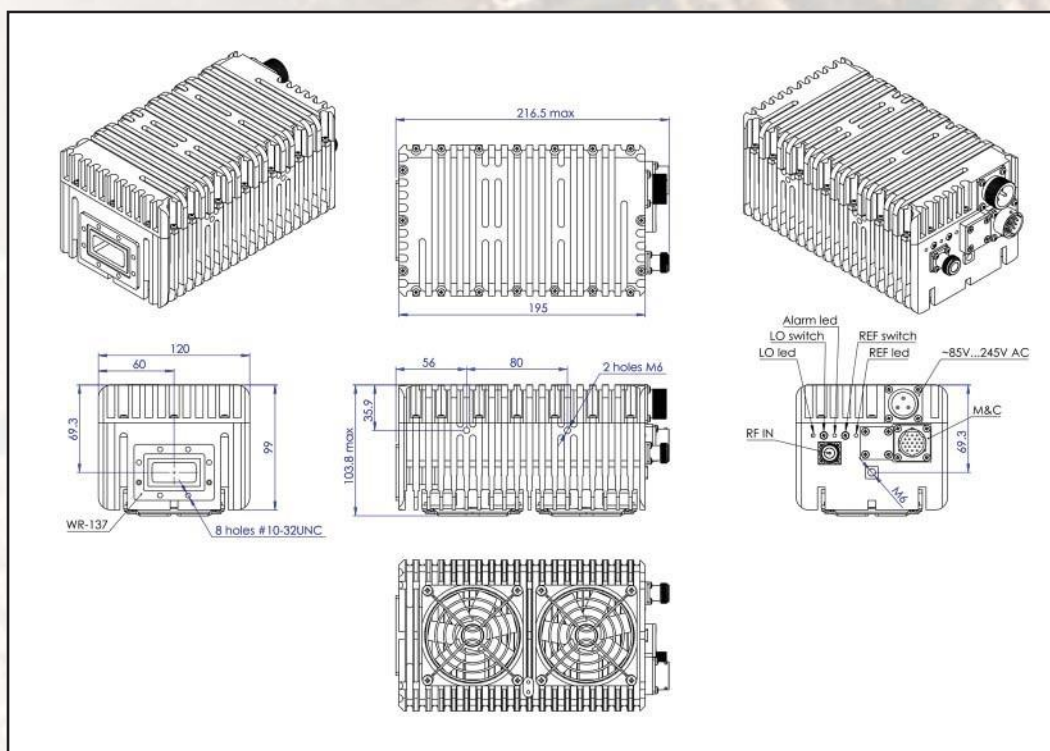
- ◆ Output frequency 5.850-7.05 GHz
- ◆ Based on GaN technology which enables high efficiency, low power consumption and high reliability.
- ◆ Double L.O. 4.9 & 5.2 GHz
- ◆ Incomparable low power consumption (186W max)
- ◆ Advanced M&C interface - combined RS-232/485, Ethernet (HTTP and SNMP ver. 2 and 3) and optional FSK
- ◆ Auto-ranging 80 - 240 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

ABD50XC / ABD50XCF



This smallest and lightest 50W 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 all three C-Band sub-bands: Standard (5.850-6.425 GHz) and Palapa (6.365-6.725 GHz) and Insat (6.725-7.05 GHz).

Mechanical Drawing





50W Full C-Band Block Up Converter

TECHNICAL SPECIFICATIONS		
RF frequency		5.850 to 7.05 GHz
Dual local oscillator		4.90 and 5.20 GHz
IF frequency		950 to 1,550 MHz
Output power		50W (+47 dBm min.), P-Linear 25.1W (44 dBm min.)
IF connector		N-type or F-type (field-exchangeable)
Power supply : auto-ranging via MS connector		+80 ~ +240 VAC, 186W max.
Output interface		CPR 137 G
Gain		68 dB nominal
IMD3 (two tones)		-28 dBc max. 2 signal 5 MHz apart at P-LINEAR
L.O. leakage		-45 dBm max
Spurious		-53 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		via IF cable 10 MHz (sine-wave) -5 to +5 dBm @ input port
TX Gain variation		± 1.1 dB over 40 MHz
TX Gain stability over temperature range		± 1.6 dB over full band ± 1.2 dB p_p @ fixed frequency
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)
FSK		Multiplexed on TX IFL, compatible with Compech and Paradigm
M&C Interface		RS-232, RS-485 and Ethernet (HTTP and SNMP ver. 2 and 3)
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 YELLOW blinking	Summary alarm All OK All OK standard L.O. 4.90 GHz All OK standard L.O. 5.20 GHz
Temperature range (ambient)		
operating		-40 deg C to +65 deg C
storage		-55 deg C to +85 deg C
Vibration and shock		Complies with MIL-STD-810E
Altitude		Up to 23,000 feet
Dimensions & housing		195 (L) x 120 (W) x 99 (H) mm 7.67" (L) x 4.72" (W) x 3.89" (H)
Weight		2.96 kg (6.5 lbs) max