



50W Full C-Band Block Up Converter

KEY FEATURES

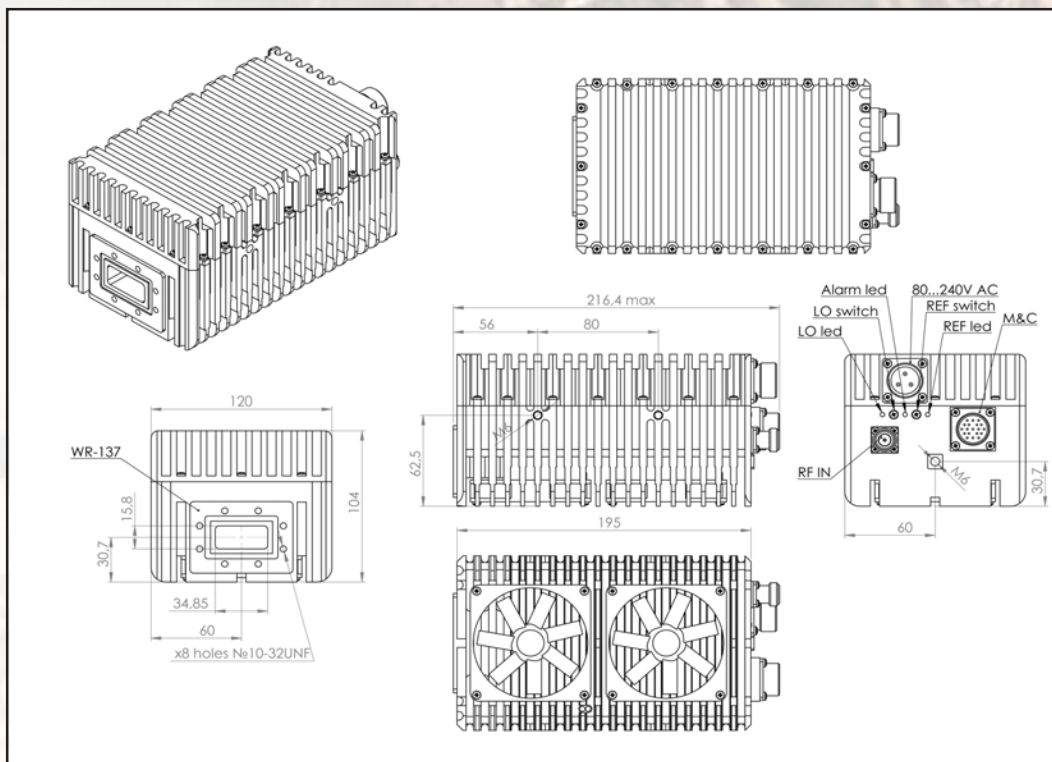
- ◆ 5.85 GHz - 7.05 GHz output frequency
- ◆ Based on GaN technology which enables high efficiency, low power consumption and high reliability.
- ◆ Double L.O. 4.9 & 5.5 GHz
- ◆ Incomparable low power consumption (183W max)
- ◆ High power efficiency (50W min over temperature)
- ◆ Digital temperature compensation
- ◆ Field-exchangeable (F/N) IF connector
- ◆ Power and lock status LED
- ◆ Advanced M&C interface - combined RS-232/485, Ethernet (HTTP and SNMP ver. 2 and 3) and optional FSK
- ◆ Internal 10MHz high stability reference (optional)
- ◆ RoHS compliant

ABC50XC / ABC50XCF



This smallest and lightest 50W(min) L-To C-Band Block Up Converter is based on GaN technology. It could be mounted directly on a feed horn. The unit covers all three C-Band sub-bands: Standard (5.85-6.425 GHz), 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 5.50 GHz
IF frequency		950 to 1,550 MHz
Output power	@ MIN @ PLINEAR	50W (+47 dBm min.) 25.1W (+44 dBm min.)
IF connector		N-type or F-type (field-exchangeable)
Power supply : auto-ranging via MS connector		+36 ~ +60 VDC, 183 W max.
Output interface		CPR 137 G
Altitude		Up to 23,000 feet
Gain		68 dB nominal
IMD3 (two tones)		-28 dBc max.
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 over 40 MHz over 500 MHz over temperature range		1.1 dB p_p 1.6 dB p_p 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)
M&C Interface		RS-232 and RS-485, Ethernet (HTTP and SNMP ver.2 and 3)
FSK		Multiplexed on TX IFL, com. with Comtech/ Paradigm
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 extended L.O. 5.50 GHz
Temperature range (ambient)	operating storage	-40 deg C to +65 deg C -55 deg C to +85 deg C
Vibration and shock		Complies with MIL-STD-810E
Dimensions & housing		195 (L) x 120 (W) x 104 (H) mm 7.67"(L) x 4.72"(W) x 4.09" (H)
Weight		2.96 kg (6.5 lbs) max