



50W Full C-Band Block Up Converter

KEY FEATURES

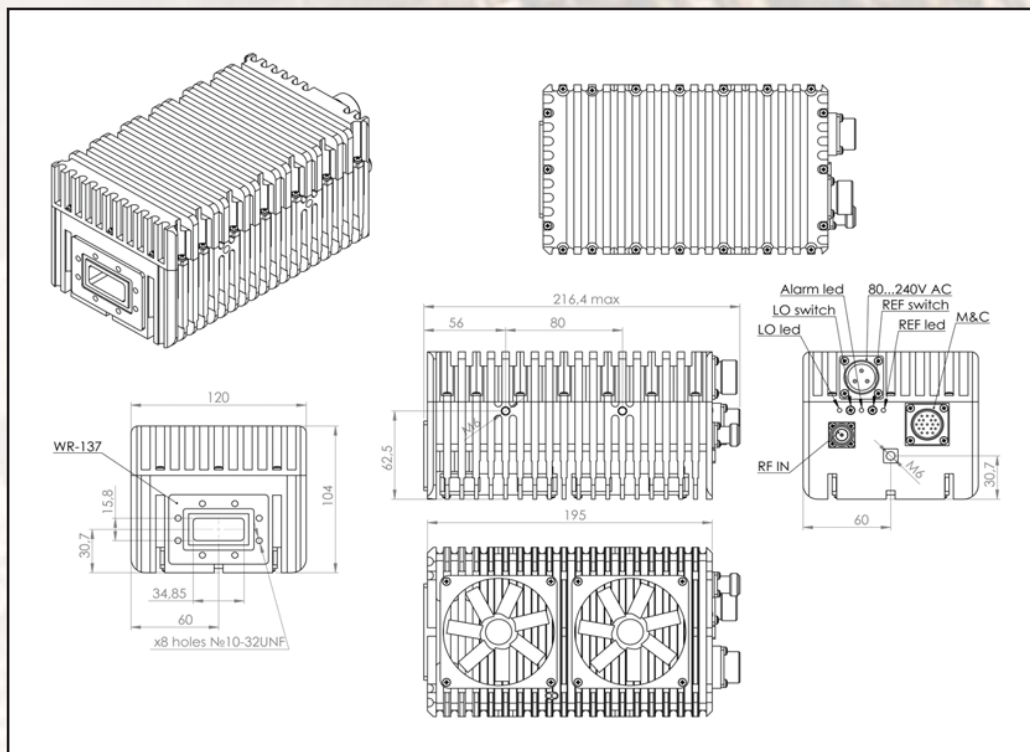
- ◆ Output frequency 5.850 GHz - 7.05 GHz
- ◆ Double L.O. 4.9 & 5.5 GHz
- ◆ Based on GaN technology which enables high efficiency, low power consumption and high reliability
- ◆ Incomparable low power consumption (183W max.)
- ◆ Auto-ranging powering option 36 - 60 VDC
- ◆ Digital temperature compensation
- ◆ Field-exchangeable (F/N) IF connector
- ◆ 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)
- ◆ Internal auto-sensing and controllable 10MHz high stability reference (optional)
- ◆ RoHS compliant

ABC50XC / ABC50XCF



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 5.50 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	+36 ~ +60 VDC, 183W max.
Output interface	CPR 137 G
Gain	68 dB nominal
IMD3	-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 -66 dBm/Hz (max.) Receive -157 dBm/Hz (max.)
Noise figure	15 dB max.
Input V.S.W.R.	1.5 : 1 max.
Output V.S.W.R.	1.5 : 1 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
Mute	Shut off the HPA if L.O. unlocked
Status LED	
Amplifier	RED Summary alarm
L.O.	GREEN All OK
10MHz	GREEN All OK standard L.O. 4.90 GHz GREEN blinking All OK extended L.O. 5.50 GHz GREEN External 10MHz reference GREEN blinking Internal 10MHz reference RED No 10MHz reference detected
Temperature range (ambient) operating storage	-40 deg C to +55 deg C -55 deg C to +85 deg C
Vibration and shock	Complies with MIL-STD-810E
Altitude	Up to 23,000 feet
IP rating	IP67
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.