



3W Full C-Band Block Up Converter

KEY FEATURES

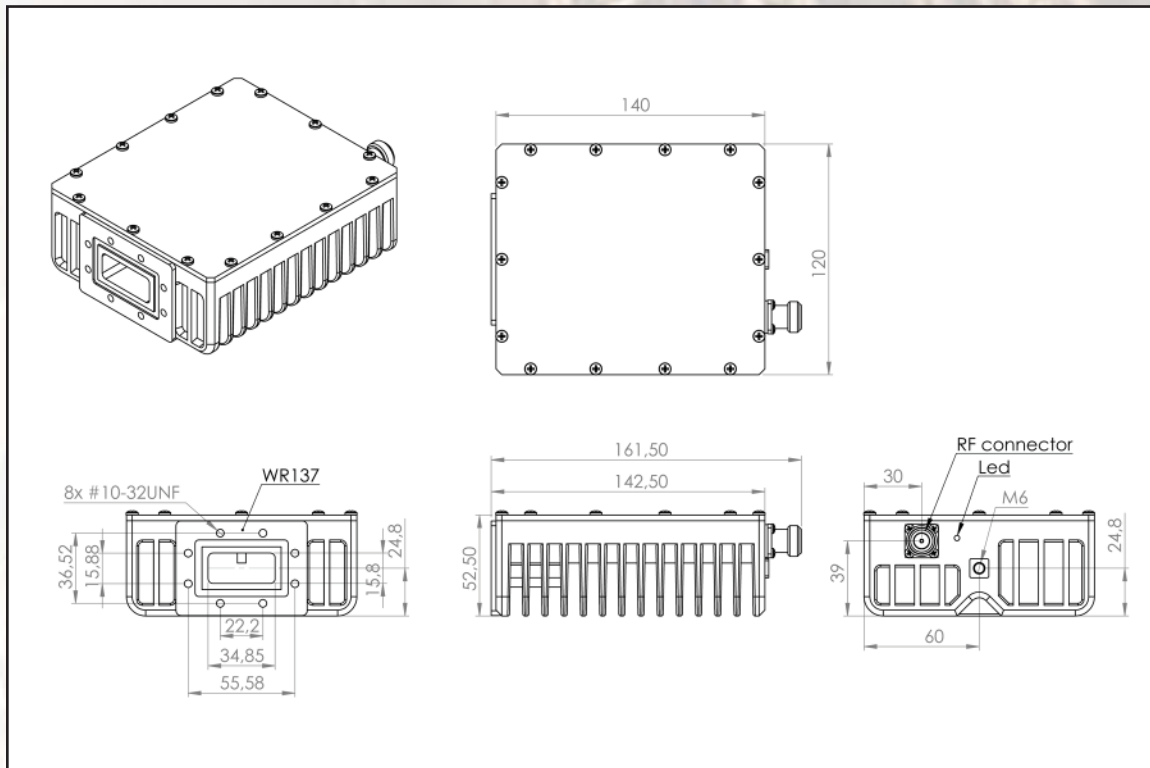
- ◆ Output frequency 5.850-7.05 GHz
- ◆ Double- L.O. (manually switchable 4.9 & 5.5 GHz)
- ◆ Incomparable low power consumption (17W)
- ◆ Utilizing GaN technology
- ◆ Auto-ranging powering option 15-60 VDC
- ◆ Digital temperature compensation
- ◆ Field-exchangeable (F/N) IF connector
- ◆ Internal 10MHz high stability reference (optional)
- ◆ L.O., alarm, lock LED
- ◆ RoHS compliant

ABE3XC / ABE3XCF



This smallest and lightest 3W L-To C-Band Block Up Converter is based on GaN technology. High power efficiency resulting in the low current (<1.5 amps @ 24VDC). The unit covers all three C-Band sub-bands: Standard (5.850-6.425GHz), Palapa (6.365-6.725 GHz) and Insat (6.725-7.05 GHz).

Mechanical Drawing





3W 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	3W (+34.7 dBm min.)
IF connector	N-type or F-type (field-exchangeable)
Power supply : auto-ranging via IF connector	+15 VDC ~ +60 VDC via IF cable 17W max.
Output interface	CPR 137 G
Gain	60 dB nominal
IMD3 (two tones)	-26 dBc max. 2 signal 5 MHz apart at P-LINEAR
L.O. leakage	-45 dBm max
Spurious	-50 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	± 0.5 dB over 40 MHz
TX Gain stability over temperature range	± 1.8 dB over full band ± 1.5 dB typ., ± 1.8 dB max.
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.
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	-40 deg C to +55 deg C
storage	-55 deg C to +85 deg C
Vibration and shock	Complies with MIL-STD-810E
Dimensions & housing	142.5 (L) x 120 (W) x 52.5 (H) mm 5.61" (L) x 4.72" (W) x 2.06" (H)
Weight	1 kg (2.2 lbs) max