



15W Full 5.85-7.05 GHz C-Band BUC

KEY FEATURES

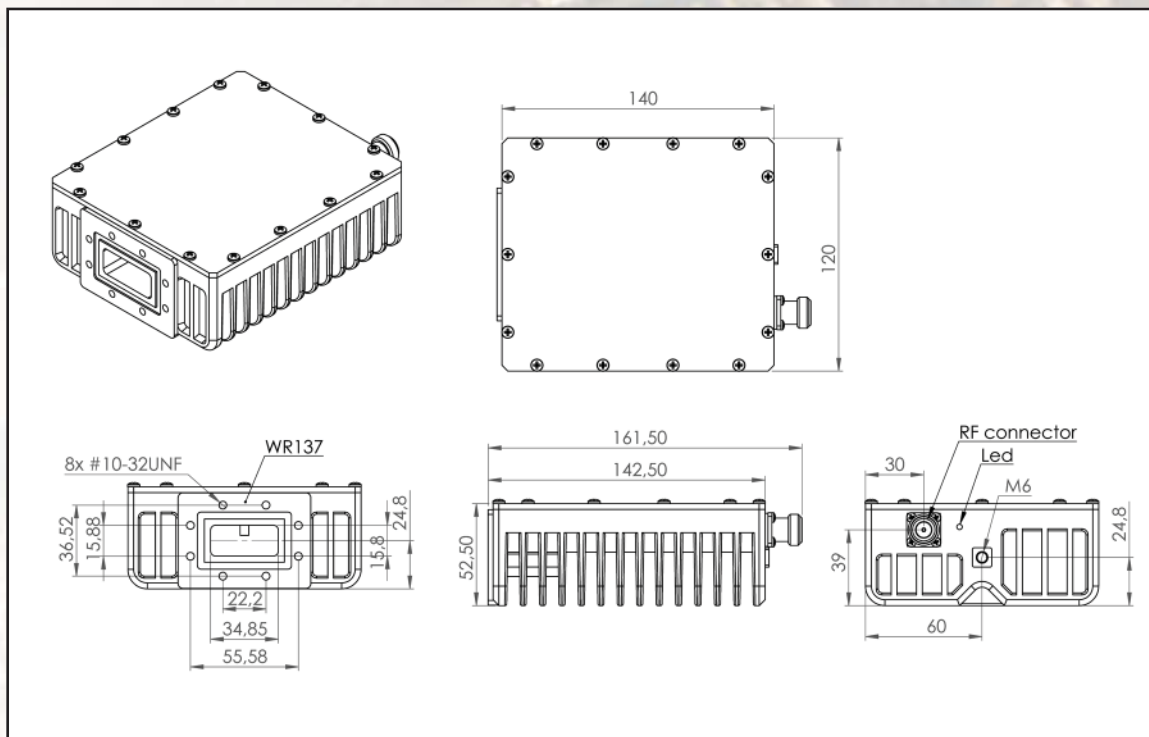
- ◆ Output frequency 5.85-7.05 GHz
- ◆ Double- L.O. (switchable 4.9 & 5.5 GHz)
- ◆ Based on GaN technology which enables high efficiency, low power consumption and high reliability
- ◆ Incomparable low power consumption (36W max.)
- ◆ Auto-ranging powering option 15-60 VDC
- ◆ High power efficiency
- ◆ Digital temperature compensation
- ◆ Field-exchangeable (F/N) IF connector
- ◆ Internal 10MHz high stability 10^{-8} reference (optional)
- ◆ Power and lock status LED
- ◆ RoHS compliant
- ◆ Three-year warranty

ABE15XC / ABE15XCF



This smallest and lightest 15W L-To C-Band Block Up Converter is based on GaN technology. It is designed to be mounted on the feed horn. High power efficiency resulting in the low current (<1.5 amps @ 24VDC). 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





15W Full 5.85-7.05 GHz C-Band BUC

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		15W (+41.8 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 36W max.
Output interface		CPR 137 G
Internal 10MHz high stability reference		10 ⁻⁸
Gain		68 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:		via IF cable
frequency		10 MHz (sine-wave)
input power		-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.		2 : 1 max
Output V.S.W.R.		2 : 1 max.
Mute		Shut off the HPA if L.O. unlocked
Status LED	RED	Summary alarm
	GREEN	All OK
	YELLOW	All OK standard L.O. 4.90 GHz
	YELLOW blinking	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