



12W Ext. 5.85-6.725 GHz C-Band BUC

KEY FEATURES

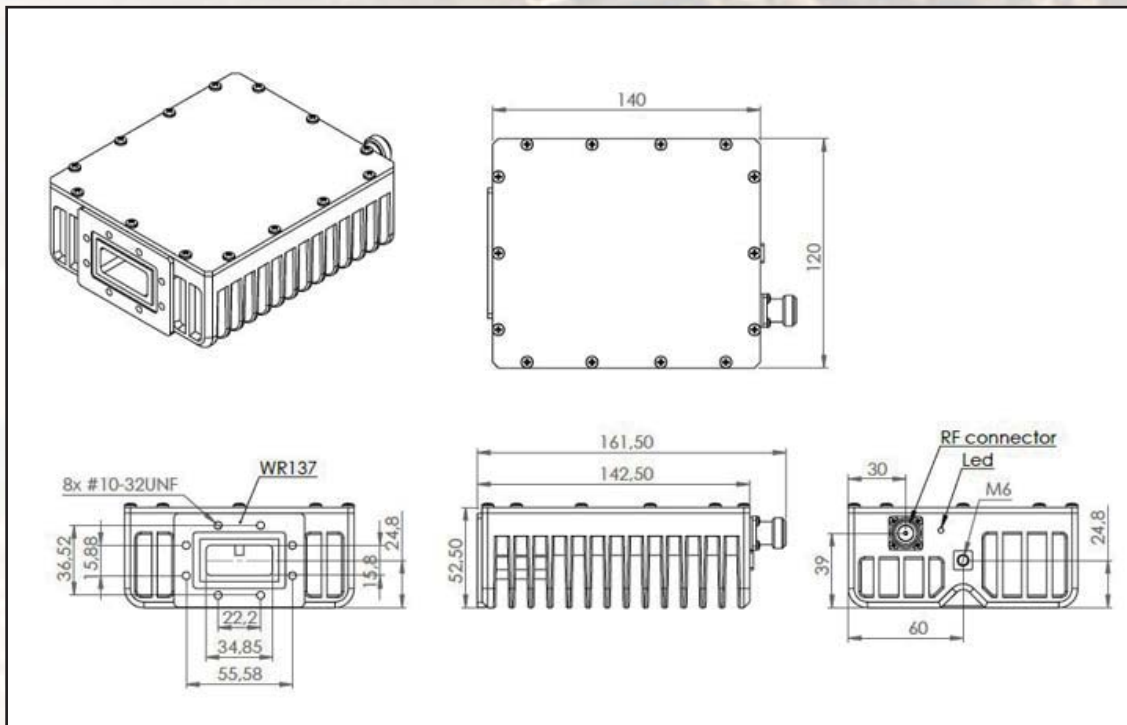
- ◆ Output frequency 5.850 GHz - 6.725 GHz
- ◆ Based on GaN technology which enables high efficiency, low power consumption and high reliability
- ◆ Local oscillator 4.90 GHz
- ◆ Incomparable low power consumption (42W max.)
- ◆ Auto-ranging powering option 15 - 60 VDC
- ◆ Digital temperature compensation
- ◆ L.O. lock and amplifier LEDs
- ◆ Field-exchangeable (F/N) IF connector
- ◆ Built-in redundancy option
- ◆ Internal 10MHz high stability reference (optional)
- ◆ RoHS compliant

ABE12DC / ABE12DCF



This smallest and lightest 12W L-To C-Band Block Up Converter is based on GaN technology. High power efficiency resulting in the low current (1.6 amps max. @ 24VDC). The unit covers Standard (5.85-6.425 GHz) and Palapa (6.365-6.725 GHz) C-Band frequencies.

Mechanical Drawing





12W Ext. 5.85-6.725 GHz C-Band BUC

TECHNICAL SPECIFICATIONS	
RF frequency	5.850 to 6.725 GHz
Local oscillator	4.90 GHz
IF frequency	950 to 1,825 MHz
Output power	12W (+40 dBm min.), P-Linear 6.4W (+38 dBm min.)
IF connector	N-type or F-type (field-exchangeable)
Power supply : auto-ranging via IF connector	+15 VDC ~ +60 VDC, 42W max.
Output interface	CPR 137 G
Gain	68 dB nominal
IMD3	-26 dBc max. 2 signal 5MHz 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 BUC in case of L.O. unlocked
Status LED	
Amplifier	RED Summary alarm
	GREEN All OK
L.O.	GREEN All OK L.O. is set to 4.9 GHz
10MHz	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	140 (L) x 120 (W) x 52.5 (H) mm 5.51"(L) x 4.72"(W) x 2.07" (H)
Weight	1 kg (2.2 lbs) max.