



30W Fanless Ext. 5.85-6.725 GHz BUC

KEY FEATURES

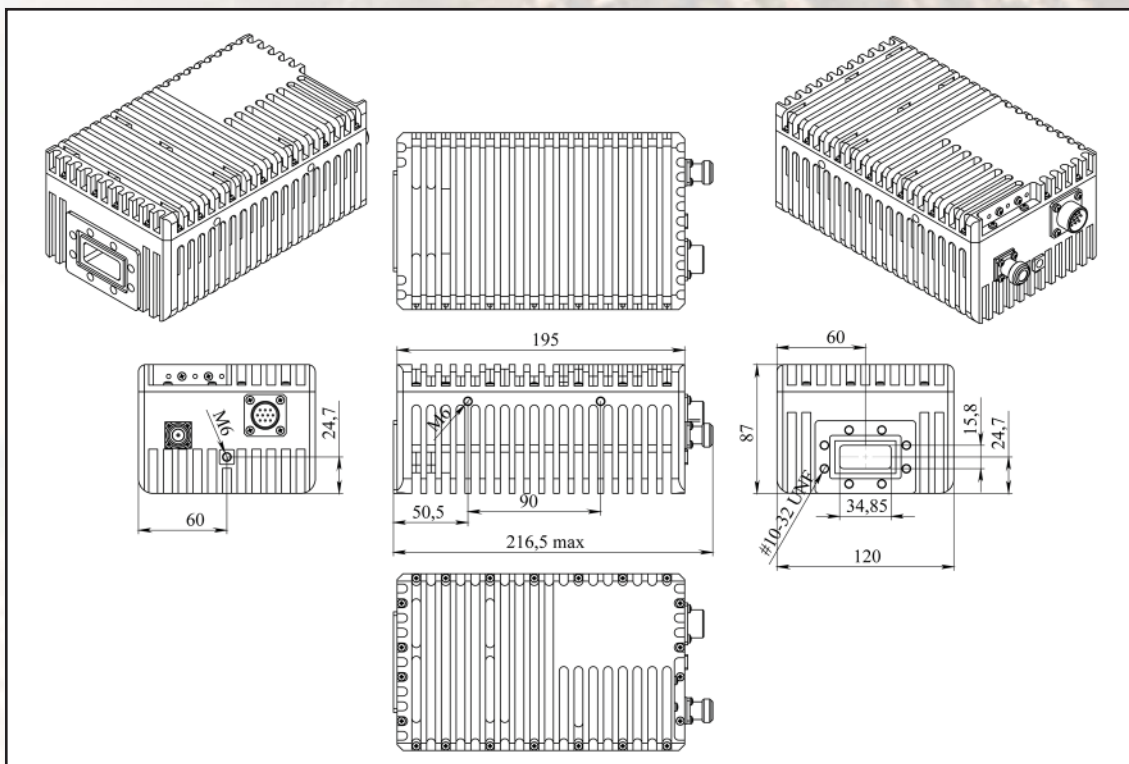
- ◆ Output frequency 5.85-6.725 GHz
- ◆ Based on GaN technology which enables high efficiency, low power consumption and high reliability.
- ◆ Incomparable low power consumption (107W max)
- ◆ Utilizing GaN technology
- ◆ Local oscillator 4.9 GHz
- ◆ Auto-ranging powering option 15 - 60 VDC
- ◆ Digital temperature compensation
- ◆ Field-exchangeable (F/N) IF connector
- ◆ Advanced M&C RS-232/485, FSK (optional), Ethernet (optional)
- ◆ Internal 10MHz high stability reference (optional)
- ◆ Power and lock status LED
- ◆ RoHS compliant

ABE30DC / ABE30DCF



This smallest and lightest fanless 30W L-To C-Band Block Up Converter is based on GaN technology. It could be mounted directly on a feed horn. The unit covers Standard (5.85-6.425 GHz) and Palapa (6.365-6.725 GHz) C-Band frequencies.

Mechanical Drawing





30W Ext. 5.850-6.725 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	30W (+45 dBm min.), P-Linear 15.7W (41.9 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 107W max.	
Output interface	CPR 137 G	
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	-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	± 0.5 dB over 40 MHz ± 1.8 dB over full band	
TX Gain stability over temperature range	± 1.5 dB typ., ± 1.8 dB max.	
Phase noise (Exceeds Intelsat's standard IESS308/309)	-55 dBc/Hz max. @ 10 Hz	
	-65 dBc/Hz max. @ 100 Hz	
	-75 dBc/Hz max. @ 1 KHz	
	-85 dBc/Hz max. @ 10 KHz	
	-95 dBc/Hz max @ 100 KHz	
-115 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		
10MHz Reference LED	GREEN	External Reference - OK
	GREEN blinking	Internal Reference - OK
	RED	Reference Alarm
Alarm LED	GREEN	OK
	GREEN blinking	Mute
	RED	Summary Alarm
L.O. LED	GREEN	All OK standard 4.9 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	216.5 (L) x 120 (W) x 87 (H) mm 8.66" (L) x 4.8" (W) x 3.48" (H)	
Weight	2.76 kg (6.1 lbs) max	