

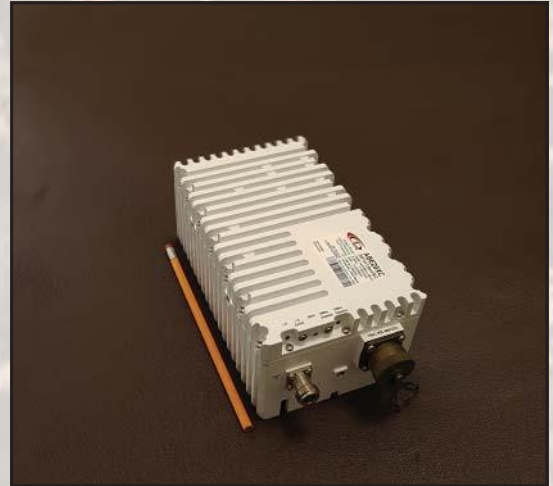


20W Fanless Full C-Band BUC

KEY FEATURES

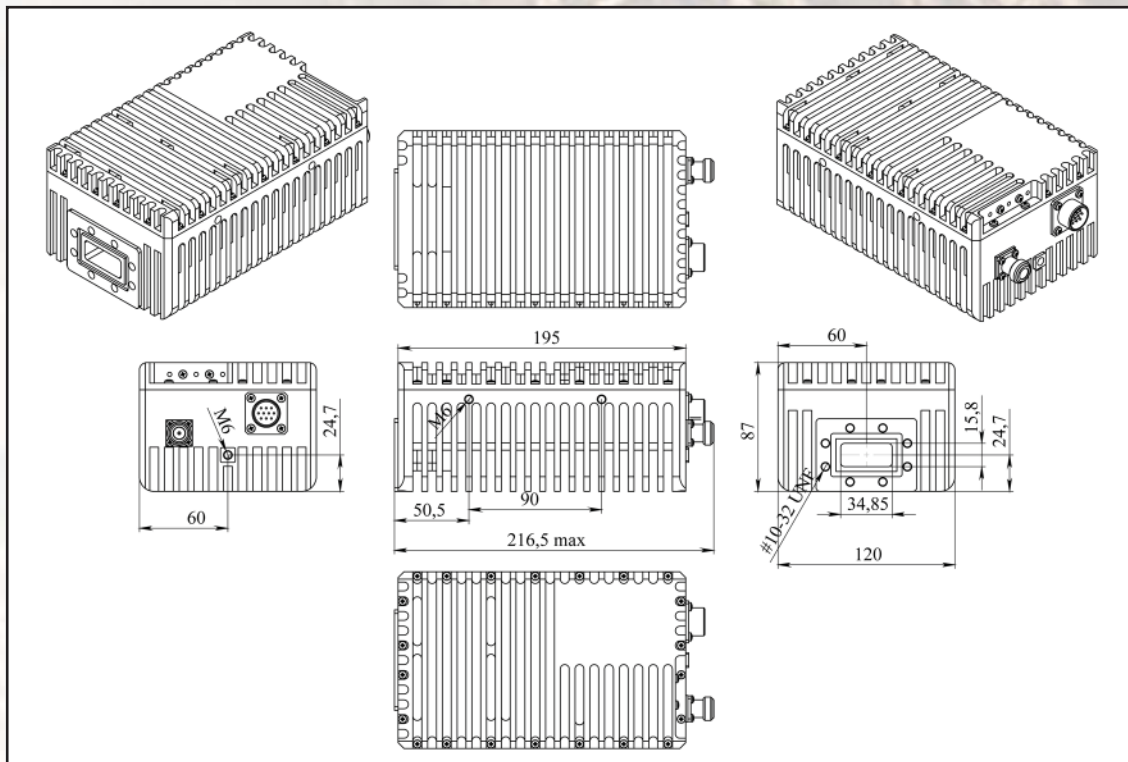
- ◆ Output frequency 5.85 - 7.05 GHz
- ◆ Double L.O. (electronically and manually switchable 4.9 & 5.2 GHz)
- ◆ Based on GaN technology which enables high efficiency, low power consumption and high reliability.
- ◆ Incomparable low power consumption (85W max.)
- ◆ Utilizing GaN technology
- ◆ Auto-ranging powering 18 - 75 VDC
- ◆ Digital temperature compensation
- ◆ Field-exchangeable (F/N) IF connector
- ◆ Advanced M&C via RS-232/485, FSK, Ethernet through HTTP and SNMP (v.2 and v.3) (optional)
- ◆ Internal 10MHz high stability reference (optional)
- ◆ Power and lock status LED
- ◆ RoHS compliant

ABE20XC / ABE20XCF



This smallest and lightest fanless 20W L-To C-Band Block Up Converter is based on GaN technology. It could be mounted directly on a feed horn. 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





20W Fanless Full C-Band BUC

TECHNICAL SPECIFICATIONS		
RF frequency	5.850 to 7.05 GHz	
Dual local oscillator	4.90 and 5.20 GHz	
IF frequency	950 to 1,850 MHz	
Output power	20W (+43 dBm min.), P-Linear 11.2W (40.49 dBm min.)	
IF connector	N-type or F-type (field-exchangeable)	
Power supply : auto-ranging via IF connector or MS - connector (optional)	+18 ~ +75 VDC, 85W 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	
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)	-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	-75 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
Alarm LED	RED	Reference Alarm
	GREEN	OK
	GREEN blinking	Mute
L.O. LED	RED	Summary Alarm
	GREEN	All OK standard 4.9 GHz
	GREEN blinking	All OK standard 5.2 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	