



20W Fanless Ext. 5.85-6.725 GHz C-Band BUC

KEY FEATURES

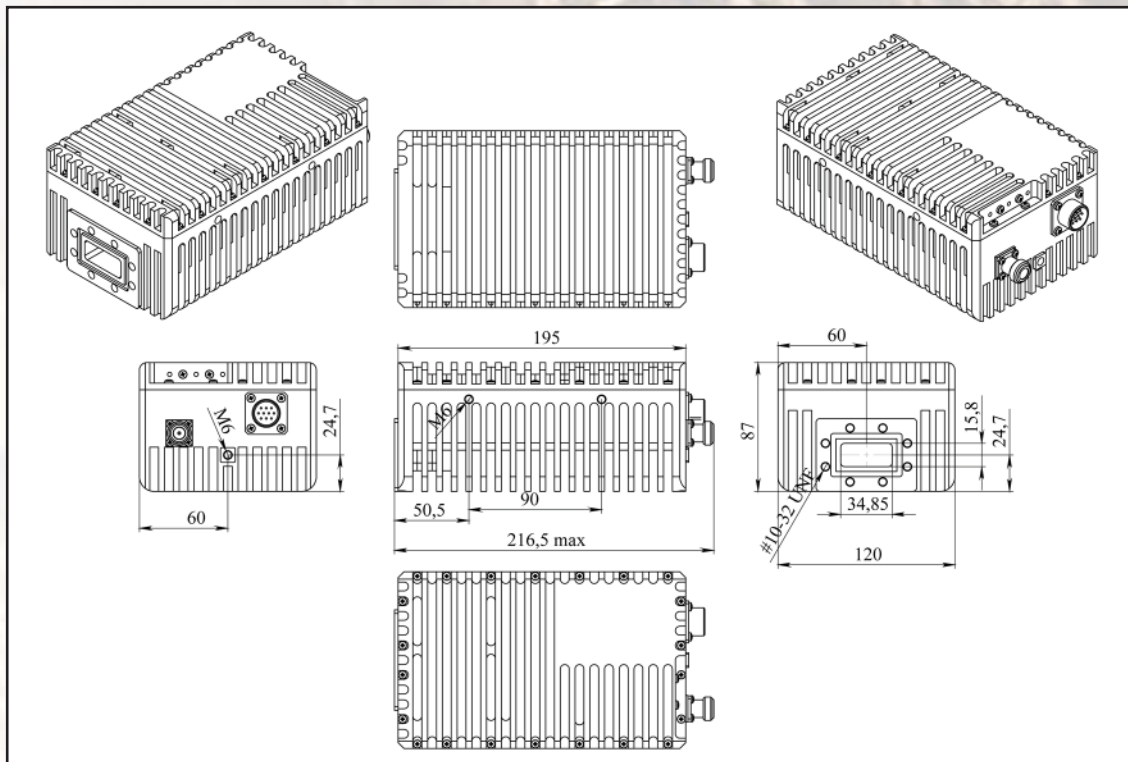
- ◆ Output frequency 5.85-6.725 GHz
- ◆ Local oscillator 4.9 GHz
- ◆ Based on GaN technology which enables high efficiency, low power consumption and high reliability.
- ◆ Incomparable low power consumption (75W max.)
- ◆ Utilizing GaN technology
- ◆ Auto-ranging powering 15 - 60 VDC
- ◆ Digital temperature 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

ABE20DC / ABE20DCF



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 Standard (5.85-6.425 GHz) and Palapa (6.365-6.725 GHz) C-Band frequencies.

Mechanical Drawing





20W Fanless 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		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)		+15 ~ +60 VDC 75W 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		-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 ± 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 Receive	-75 dBm/Hz (max) -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 GREEN blinking	External Reference - OK Internal Reference - OK
Alarm LED	RED GREEN GREEN blinking	Reference Alarm OK Mute
L.O. LED	RED GREEN	Summary Alarm 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