



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

KEY FEATURES

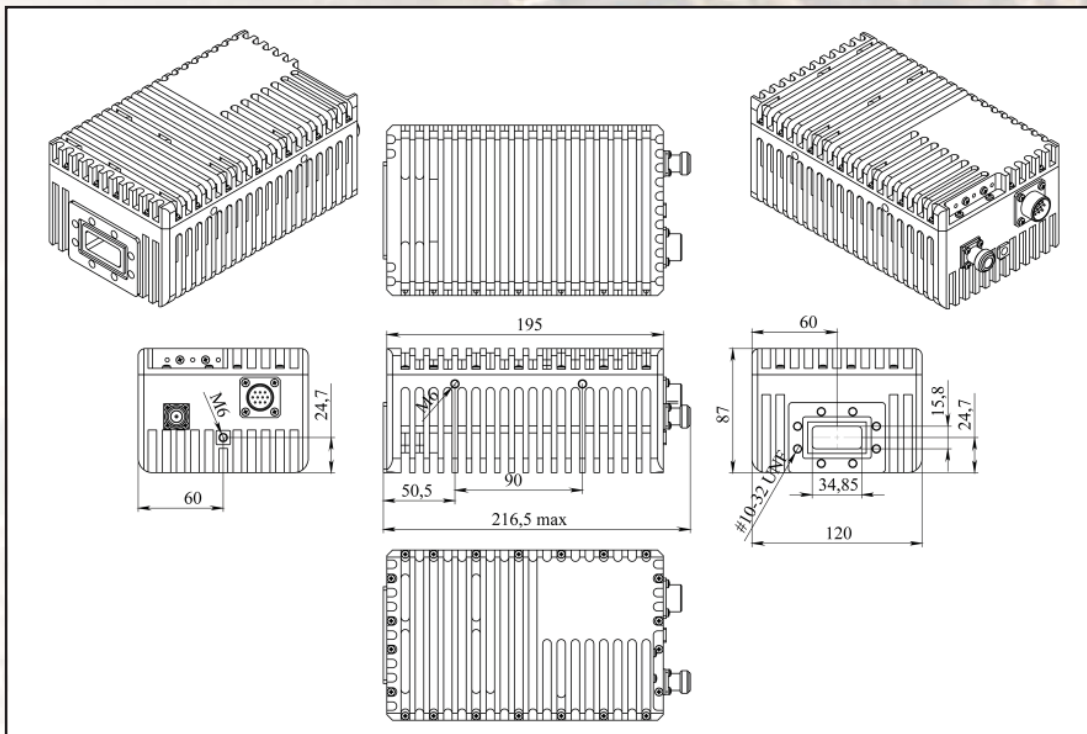
- ◆ Output frequency 5.850 GHz - 6.725 GHz
- ◆ Based on GaN technology which enables high efficiency, low power consumption and high reliability
- ◆ Local oscillator 4.90 GHz
- ◆ Incomparable low power consumption (75W max.)
- ◆ Optional M&C - combined RS-232/485 / Ethernet (HTTP and SNMP ver. 2 & 3) / FSK (optional)
- ◆ Auto-ranging powering option 15 - 60 VDC
- ◆ Digital temperature compensation
- ◆ Power and lock status LED
- ◆ Field-exchangeable (F/N) IF connector
- ◆ Built-in redundancy option
- ◆ Internal auto-sensing and controllable 10MHz high stability reference (optional)
- ◆ RoHS compliant

ABE20DC / ABE20DCF



This smallest and lightest fanless 20W L-To C-Band Block Up Converter is based on GaN technology. It is designed to be mounted on the feed horn. The unit covers C-Band sub-bands: Standard (5.850-6.425 GHz) and Palapa(6.365-6.725 GHz).

Mechanical Drawing





20W Fanless 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		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		+15 VDC ~ +60 VDC, 75W 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:		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		-55 dBc/Hz max. @ 10 Hz
(Exceeds Intelsat's standard IESS308/309)		-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.
M&C (optional)		RS-232/485 / Ethernet / FSK (optional)
Mute		Shut off the HPA if 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		-40 deg C to +55 deg C
storage		-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		195 (L) x 120 (W) x 87 (H) mm 7.67"(L) x 4.72"(W) x 3.42" (H)
Weight		2.76 kg (6.08 lbs) max.