



30W Fanless Ext. 5.85-6.725 GHz C-Band BUC

KEY FEATURES

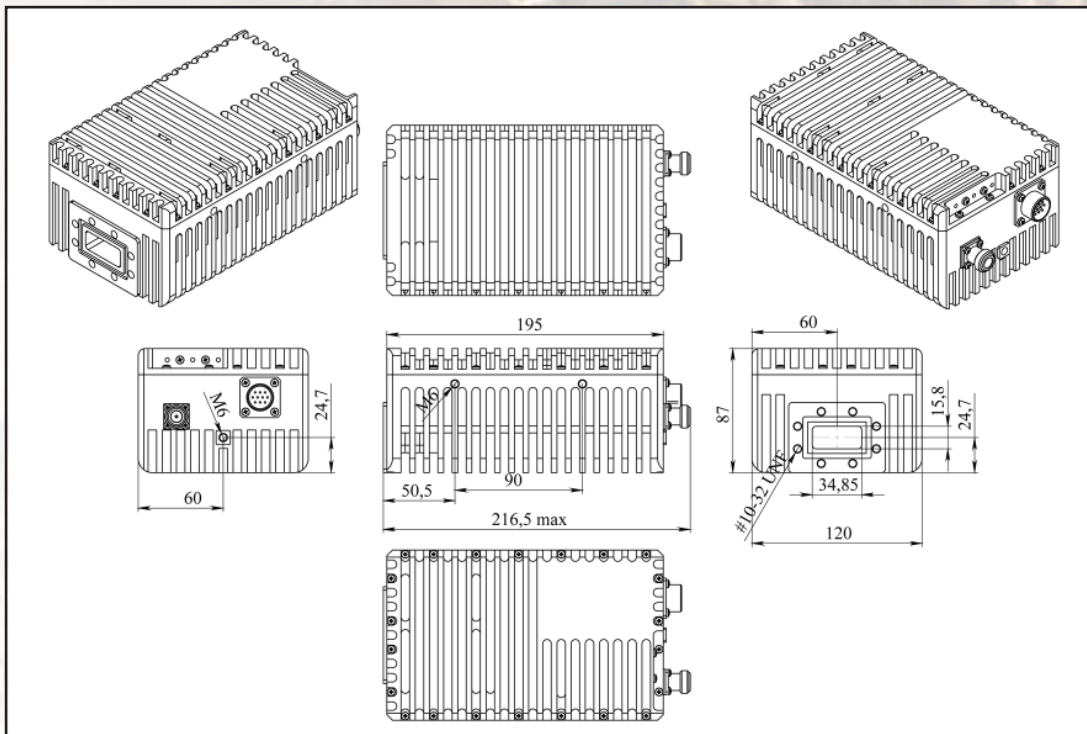
- ◆ Output frequency 5.850 GHz - 6.725 GHz
- ◆ Based on GaN technology which enables high efficiency, low power consumption and high reliability
- ◆ Local oscillator 4.90 GHz
- ◆ Incomparable low power consumption (107W max.)
- ◆ Advanced M&C - combined RS-232/485 and optional FSK, Ethernet control (HTTP and SNMP ver.2 and 3)
- ◆ 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

ABE30DC / ABE30DCF



This smallest and lightest fanless 30W 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





30W 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	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, 107W 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	-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.
M&C Interface	RS-232 and RS-485, Ethernet (HTTP and SNMP ver.2 and 3)
FSK	Multiplexed on TX IFL, com. with Comtech/ Paradigm
Mute	Shut off the HPA if L.O. unlocked
Status LED Amplifier L.O. 10MHz	RED GREEN GREEN GREEN GREEN blinking RED Summary alarm All OK All OK L.O. is set to 4.9 GHz External 10MHz reference Internal 10MHz reference 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	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.