



KEY FEATURES

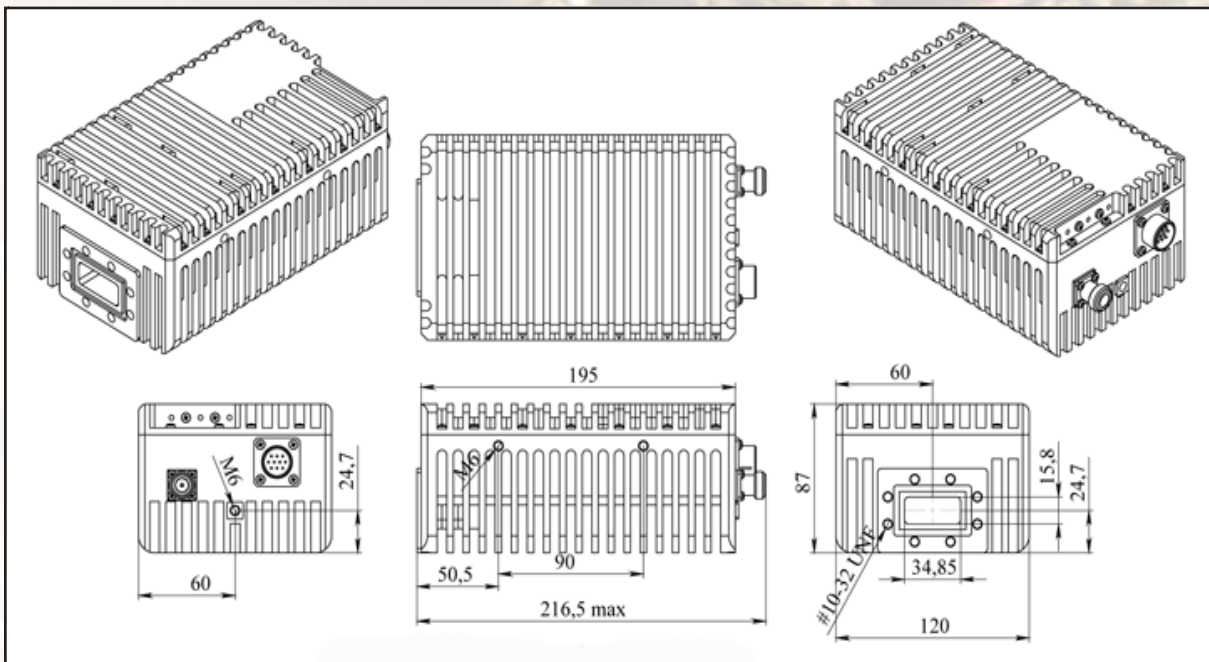
- ◆ 5.85 GHz - 6.725 GHz output frequency
- ◆ Based on GaN technology which enables high efficiency, low power consumption and high reliability.
- ◆ Incomparable low power consumption (89W @45dBm)
- ◆ Auto-ranging powering option 15-60 VDC
- ◆ High power efficiency (30W min over temperature)
- ◆ Digital temperature compensation
- ◆ Field-exchangeable (F/N) IF connector
- ◆ Power and lock status LED
- ◆ Advanced M&C RS-232/485, FSK (optional), Ethernet (optional)
- ◆ Internal 10MHz high stability 10^{-8} 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 could be mounted directly on a feed horn. The unit covers C-Band Frequencies: 5.85-6.725 GHz

Mechanical Drawing



GaN Based Product



30W Fan-less Ext. C-Band 5.85-6.725 GHz Block Up Converter

TECHNICAL SPECIFICATIONS		
RF frequency		5.850 to 6.725 GHz
Local oscillator		4.90 GHz
IF frequency		950 to 1,825 MHz
Output power		30 W (+45 dBm min.)
IF connector		N-type or F-type (field-exchangeable)
Power supply : auto-ranging via IF connector		15-60 VDC, 89 W @ 45dBm
Output interface		CPR 137 G
Internal 10MHz high stability reference		10 ⁻⁸
Gain		68 dB nominal
IMD3 (two tones)		-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)		-30dBc
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	-66 dBm/Hz (max) -157 dBm/Hz (max)
M&C Interface		RS-232 and RS-485, Ethernet
FSK		Multiplexed on TX IFL, compatible with Comtech and Paradigm
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	RED GREEN YELLOW	Summary alarm All OK All OK standard L.O. 4.90 GHz
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
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