



40W Ext. C-Band 5.85-6.725 GHz Block Up Converter

KEY FEATURES

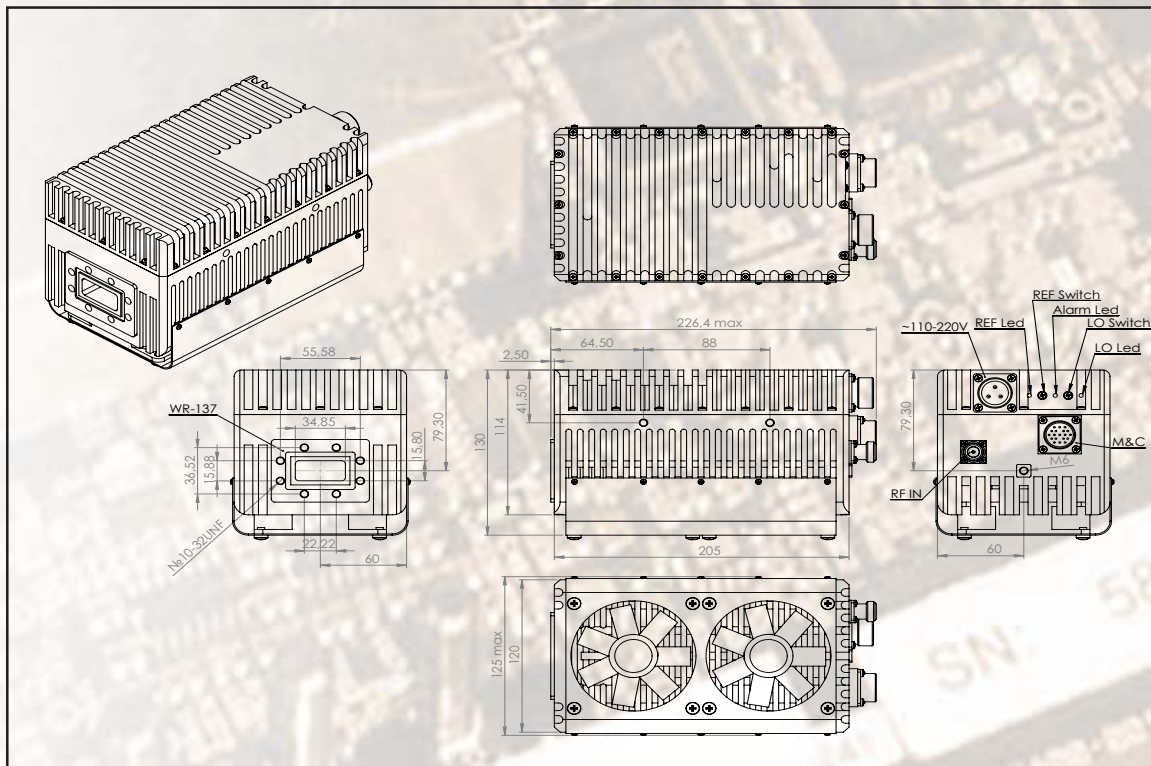
- ◆ 5.850 GHz - 6.725 GHz output frequency
- ◆ Based on GaN technology which enables high efficiency, low power consumption and high reliability.
- ◆ Incomparable low power consumption (179W max)
- ◆ Auto-ranging powering option 18-75 VDC
- ◆ High power efficiency (40W min over temperature)
- ◆ Digital 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
- ◆ Three-year warranty

ABE40DC / ABE40DCF



This smallest and lightest 40W(min) 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 and Palapa C-Band frequencies: 5.850-6.725 GHz.

Mechanical Drawing





40W 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 1,850 MHz
Output power	@ MIN. @ PLINEAR
	40W typ. (+46 dBm min.) 22.4W (+43.5 dBm min.)
IF connector	N-type or F-type (field-exchangeable)
Power supply : auto-ranging via IF connector	18-75 VDC, 179 W max
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	-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 40MHz ± 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
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, com. with Comtech/ Paradigm
Noise figure	15 dB max
Input V.S.W.R.	2 : 1 max
Output V.S.W.R.	2 : 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	-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	205 (L) x 120 (W) x 130 (H) mm 8.07"(L) x 4.72"(W) x 5.12" (H)
Weight	3.08 kg (6.8 lbs) max