



40W Full C-Band Block Up Converter

KEY FEATURES

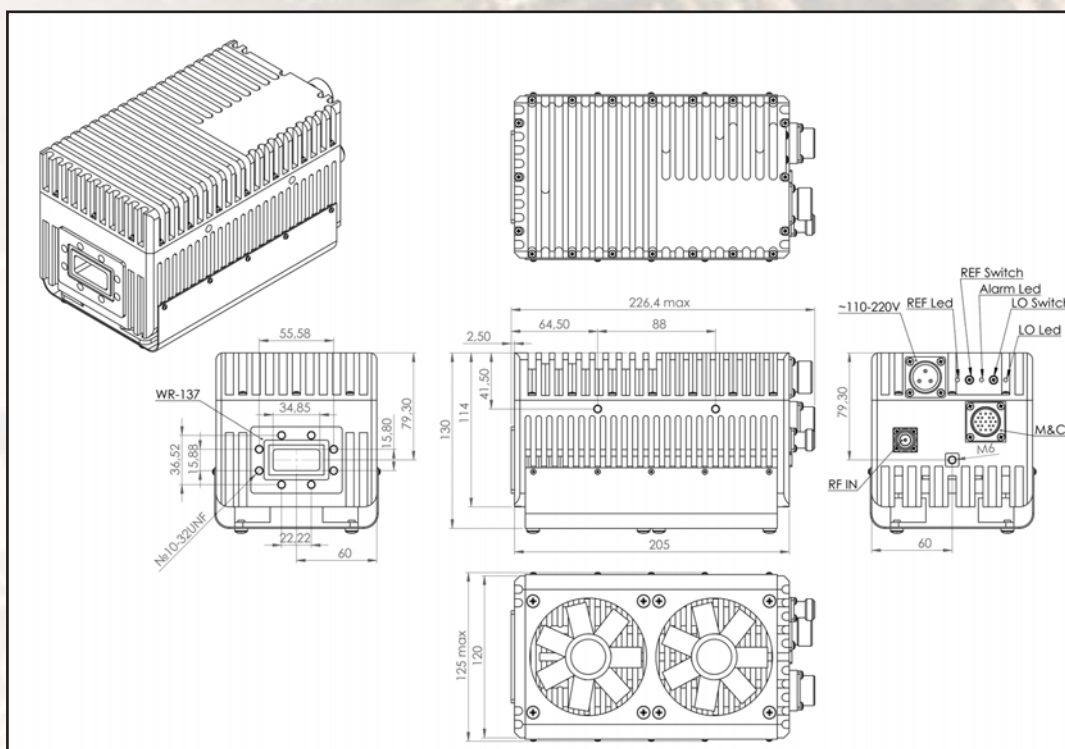
- ◆ 5.85 GHz - 7.05 GHz output frequency
- ◆ Based on GaN technology which enables high efficiency, low power consumption and high reliability.
- ◆ Double L.O. (electronically and manually switchable 4.9 & 5.5 GHz)
- ◆ Incomparable low power consumption (179W max)
- ◆ High power efficiency (40W min over 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

ABD40XC / ABD40XCF



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. High power efficiency resulting in low current (<3 amps). The unit covers all three C-Band sub-bands: Standard (5.85-6.425 GHz), Palapa (6.365-6.725 GHz) and Insat (6.725-7.05 GHz).

Mechanical Drawing





40W Full C-Band Block Up Converter

TECHNICAL SPECIFICATIONS

RF frequency	5.850 to 7.05 GHz
Dual local oscillator	4.90 and 5.50 GHz
IF frequency	950 to 1,550 MHz
Output power	@ MIN 40W typ. (+46 dBm min.) @ PLINEAR 22.4W (+43.5 dBm min.)
IF connector	N-type or F-type (field-exchangeable)
Power supply : auto-ranging via IF connector	80-240 VAC, 179 W max
Output interface	CPR 137 G
Internal 10MHz high stability reference	10 ⁻⁸
Gain	68 dB nominal
IMD3 (two tones)	-28 dBc max.
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:	via IF cable frequency 10 MHz (sine-wave) input power -5 to +5 dBm @ input port
TX Gain variation over 40 MHz over 500 MHz over temperature range	1.1 dB p_p 1.6 dB p_p 1.2 dB p_p @ fixed frequency
Phase noise (Exceeds Intelsat's standard IESS308/309)	-53 dBc/Hz max. @ 10 Hz -63 dBc/Hz max. @ 100 Hz -73 dBc/Hz max. @ 1 KHz -83 dBc/Hz max. @ 10 KHz -93 dBc/Hz max @ 100 KHz -113 dBc/Hz max @ 1 MHz
Noise power density	Transmit -66 dBm/Hz (max) Receive -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 Summary alarm GREEN All OK YELLOW All OK standard L.O. 4.90 GHz YELLOW blinking All OK extended L.O. 5.50 GHz
Temperature range (ambient)	operating -40 deg C to +65 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 8.04"(L) x 4.72"(W) x 5.12" (H)
Weight	3.08 kg (6.8 lbs) max