



5W X-Band Block Up Converter

KEY FEATURES

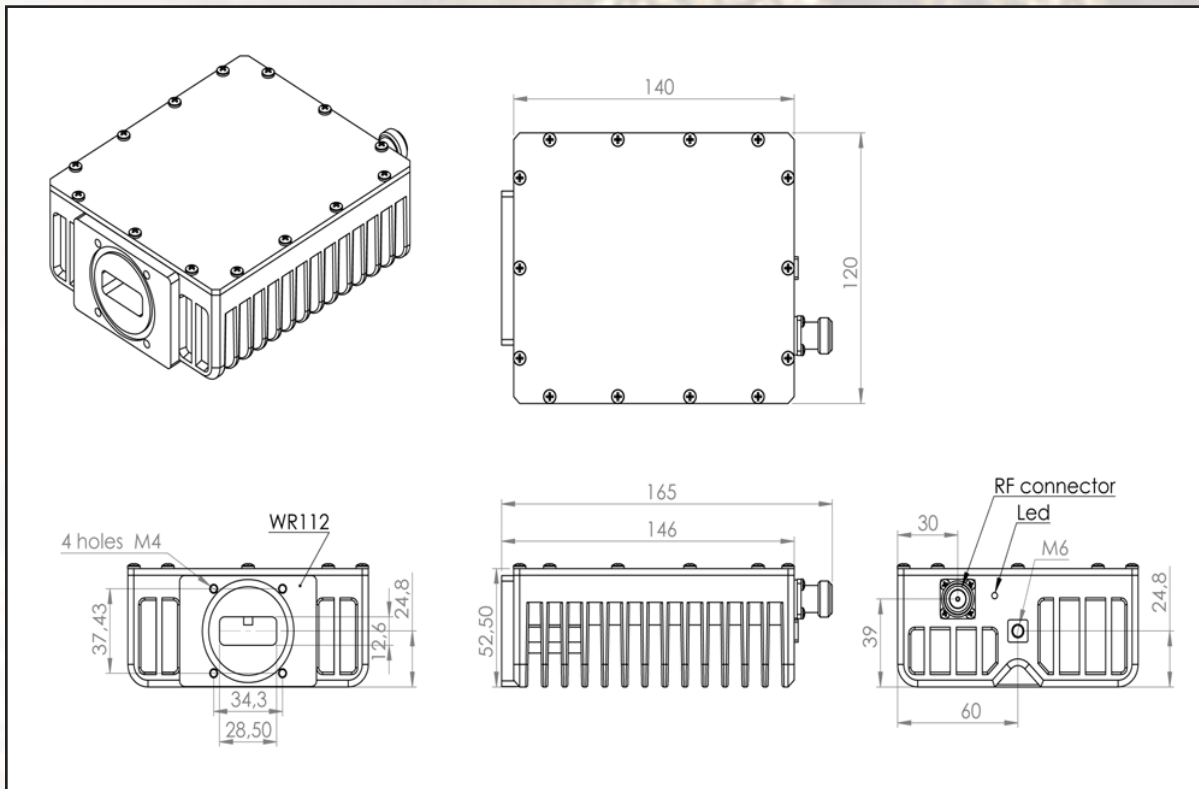
- ◆ Output frequency 7.90 - 8.40 GHz
- ◆ Local oscillator 6.95 GHz
- ◆ Based on GaN technology which enables high efficiency, low power consumption and high reliability
- ◆ Incomparable low power consumption (33W max.)
- ◆ Auto-ranging powering option 15-28 VDC
- ◆ Internal 10MHz high stability reference (optional)
- ◆ Digital temperature compensation
- ◆ Field-exchangeable (F/N) IF connector
- ◆ Power and lock status LED
- ◆ RoHS compliant
- ◆ Three-year warranty

ABA5X / ABA5XF



This smallest and lightest 5W L-To X-Band Block Up Converter is based on GaN technology. High power efficiency resulting in the low power consumption.

Mechanical Drawing





5W X-Band Block Up Converter

TECHNICAL SPECIFICATIONS	
RF frequency	7.90 to 8.40 GHz
Local oscillator	6.95 GHz
IF frequency	950 to 1,450 MHz
Output power	5W (+37 dBm min.)
IF connector	N-type or F-type (field-exchangeable)
Power supply : auto-ranging via IF connector	+15 VDC ~ +28 VDC via IF cable 33W max.
Output interface	CPR-137G, CPR-112G, WR-112G, WR-90G
Gain	64 dB nominal
IMD3 (two tones)	-26 dBc max. 2 signal 5 MHz 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: 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)	-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 Receive
	-66 dBm/Hz (max.) -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.
Mute	Shut off the HPA if L.O. unlocked
Status LED	RED GREEN
	Summary alarm All OK
Temperature range (ambient) operating storage	Depends on an external heat sink -55 deg C to +85 deg C
Vibration and shock	Complies with MIL-STD-810E
IP rating	IP67
Dimensions & housing	140 (L) x 120 (W) x 52.5 (H) mm 5.51" (L) x 4.72" (W) x 2.06" (H)
Weight	1 kg (2.2 lbs) max.