



5W X-Band Block Up Converter

KEY FEATURES

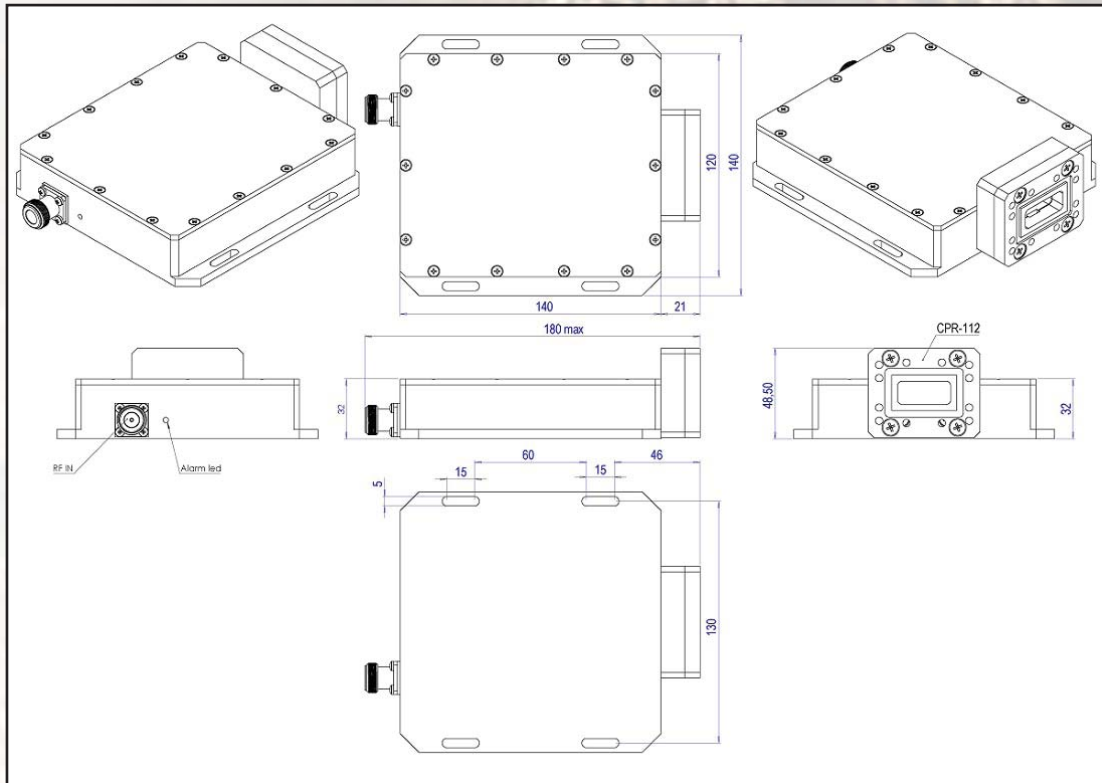
- ◆ Output frequency 7.90 - 8.40 GHz
- ◆ Local oscillator 6.95 GHz
- ◆ Based on GaN technology which enables high efficiency, low power consumption and high reliability
- ◆ Incomparable low power consumption (33W max.)
- ◆ Auto-ranging powering option 15-28 VDC
- ◆ Internal 10MHz high stability reference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

ABA5NX / ABA5NXF



This smallest and lightest 5W L-To X-Band Block Up Converter is based on GaN technology. It is designed to be mounted on the feed horn. 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 33 W 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 -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.
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 32 (H) mm without ears and flange 5.51" (L) x 4.72" (W) x 1.25" (H)
Weight	1 kg (2.2 lbs) max.