



100W X-Band Block Up Converter

KEY FEATURES

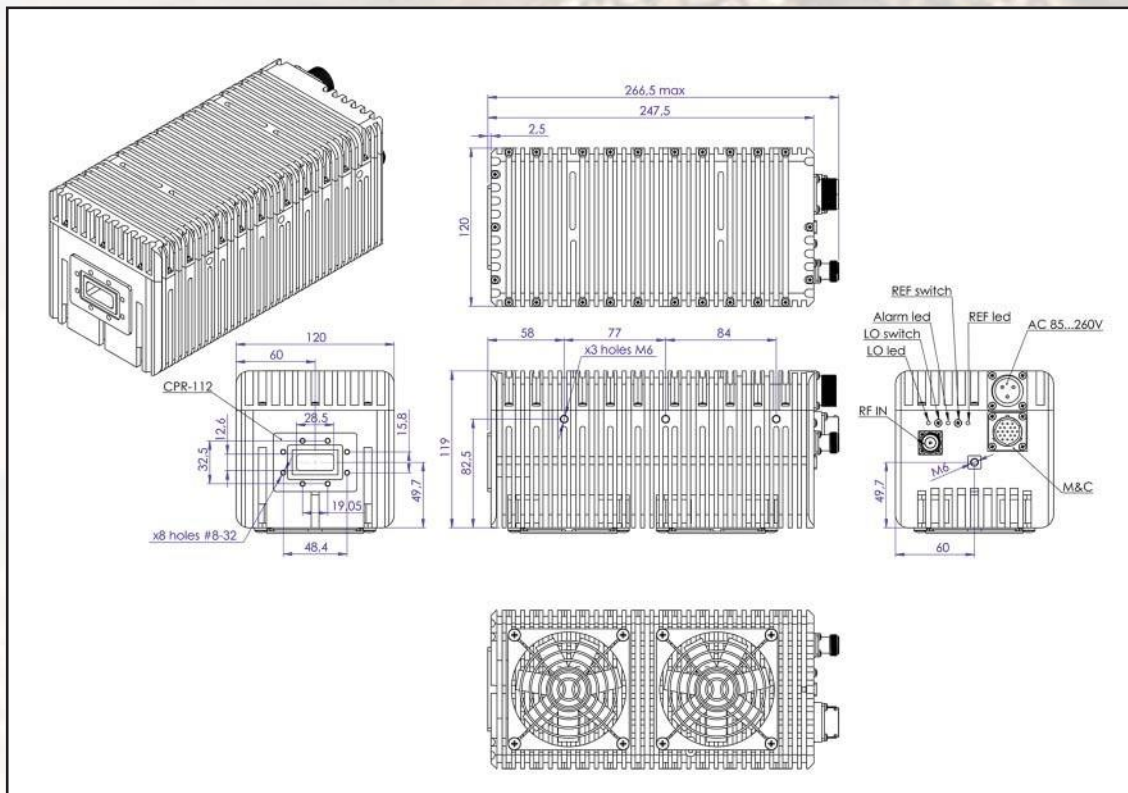
- ◆ Output frequency 7.90 - 8.40 GHz
- ◆ Local oscillator 6.95 GHz
- ◆ Based on GaN technology which enables high efficiency, low power consumption and high reliability
- ◆ Incomparable low power consumption (450W max.)
- ◆ Auto-ranging powering option 85-260 VAC
- ◆ Internal 10MHz high stability reference (optional)
- ◆ Digital temperature compensation
- ◆ Built-in redundancy option
- ◆ M&C - combined RS-232/485 and optional FSK, Ethernet control (HTTP and SNMP)
- ◆ Field-exchangeable (F/N) IF connector
- ◆ Power and lock status LED

ABD100X / ABD100XF



This AC powered outdoor 100 W(min) L-To X-Band Block Up Converter is based on GaN technology which enables high efficiency, low power consumption and high reliability. The unit is equipped with M&C capability.

Mechanical Drawing





100W 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	100W (+50 dBm min.) 52W (+47.16 dBm min.) P-linear
IF connector	N-type or F-type (field-exchangeable)
Power supply : auto-ranging via MS connector	+85 ~ +260 VAC via MS conn. 450 W max.
Output interface	CPR-112G, CPR-137G, WR-112G, WR-90G
Gain	69 dB nominal
IMD3 (two tones)	-26 dBc max. 2 signal 5 MHz 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)	-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	20 dB max
FSK	Multiplexed on TX IFL, compatible with Comtech and Paradigm
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
M&C	RS-232 and RS-485, Ethernet control (HTTP and SNMP)
Status LED RED GREEN	Summary alarm All OK
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	247.5 (L) x 120 (W) x 119 (H) mm 9.7" (L) x 4.7" (W) x 4.68" (H)
Weight	4.8 kg (10.6 lbs) max