



80W Ext. Ku-Band Block Up Converter

KEY FEATURES

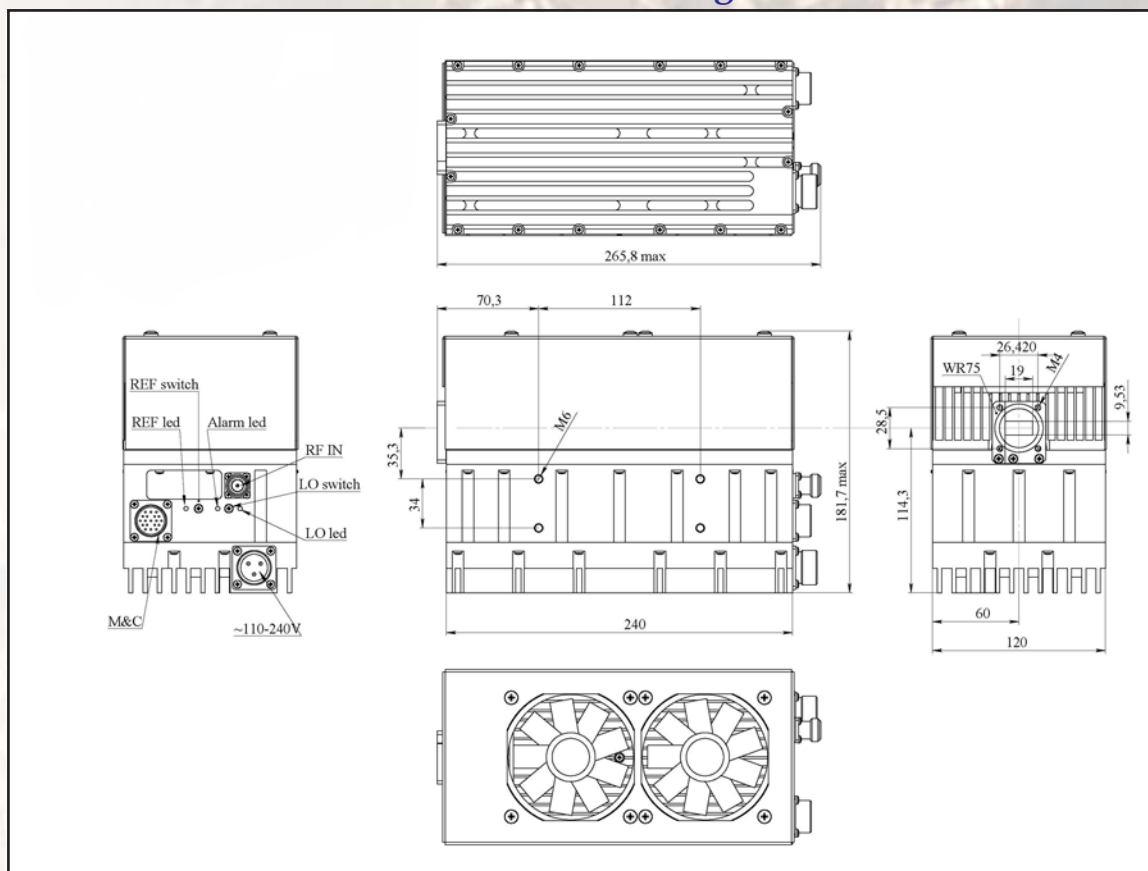
- ◆ Output frequency 13.75-14.50 GHz
- ◆ Double - L.O. (electronically and manually switchable 12.80 and 13.05 GHz)
- ◆ Extreme P-Out GaN linearity
- ◆ Auto-ranging power 36-58 VDC or 80-240 VAC power options
- ◆ Low power consumption (450W max.)
- ◆ Digital temperature compensation
- ◆ L.O. lock, Amplifier, and 10MHz Ref. detection LEDs
- ◆ Field-exchangeable (F/N) IF connector
- ◆ M&C - combined RS-232/485 and optional FSK
- ◆ Internal 10MHz high stability 10^{-8} reference (optional)
- ◆ Ethernet control (optional)
- ◆ Three-year warranty
- ◆ RoHS compliant

ABD80KX / ABD80KXF ABC80KX / ABC80KXF



This is the smallest 80W Ext. Ku-Band BUC in the Industry. The unit is based on GaN technology which enables high efficiency, low energy consumption and high reliability. The unit is ideal for mobile applications.

Mechanical Drawing





80W Ext. Ku-Band Block Up Converter

TECHNICAL SPECIFICATIONS	
RF frequency	14.00 to 14.50 GHz 13.75 to 14.50 GHz
Dual local oscillator- electronically and manually switchable	13.05 GHz and 12.80 GHz
IF frequency	950 to 1,700 MHz
Output power	80W +49 dBm (min) 40W +46 dBm PLINEAR
IF connector	N-type or F-type (field-exchangeable)
Power supply ABC80KX- auto-ranging ABD80KX- auto-ranging	+36~+58 VDC via IF cable, 440W max. 80~240 VAC via MS connector, 450W max.
Internal 10MHz high stability reference	10 ⁻⁸
Output interface	WR-75 G
Gain	69 dB min., 72 dB nominal
IMD3 (two tones)	-26 dBc max. 2 signal 5MHz 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)	-30dBc
TX Gain variation	± 0.5 dB over 40 MHz max. ± 1.8 dB over full band max.
TX Gain stability over temperature range	± 1.5 dB typ., ± 1.8 dB max.
Requirement for external reference	via IF cable
frequency	10 MHz (sine-wave)
input power	-5 to +5 dBm @ input port
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) -157dBm/Hz (max)
Noise figure	20 dB max
Input V.S.W.R.	1.5 : 1 max
Output V.S.W.R.	1.5 : 1 max. (with optional output isolator 1.10:1 max.)
Mute	Shut off the BUC in case of L.O. unlocked
M&C	RS-232 and RS-485, Ethernet (optional)
FSK	Multiplexed on TX IFL, compatible with Comtech and Paradigm
Status LED	Summary alarm All OK All OK standard L.O. 13.05 GHz All OK extended L.O. 12.80 GHz Green (detected) Red (absent)
RED	
GREEN	
YELLOW	
YELLOW blinking	
10MHz REF	
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	265.8 (L) x 120 (W) x 181.7 (H) mm 10.75" (L) x 4.7" (W) x 7.15" (H)
Weight	5.72 kg (12.6 lbs) max