



3W Mini Ext. Low Ku-Band Block Up Converter

KEY FEATURES

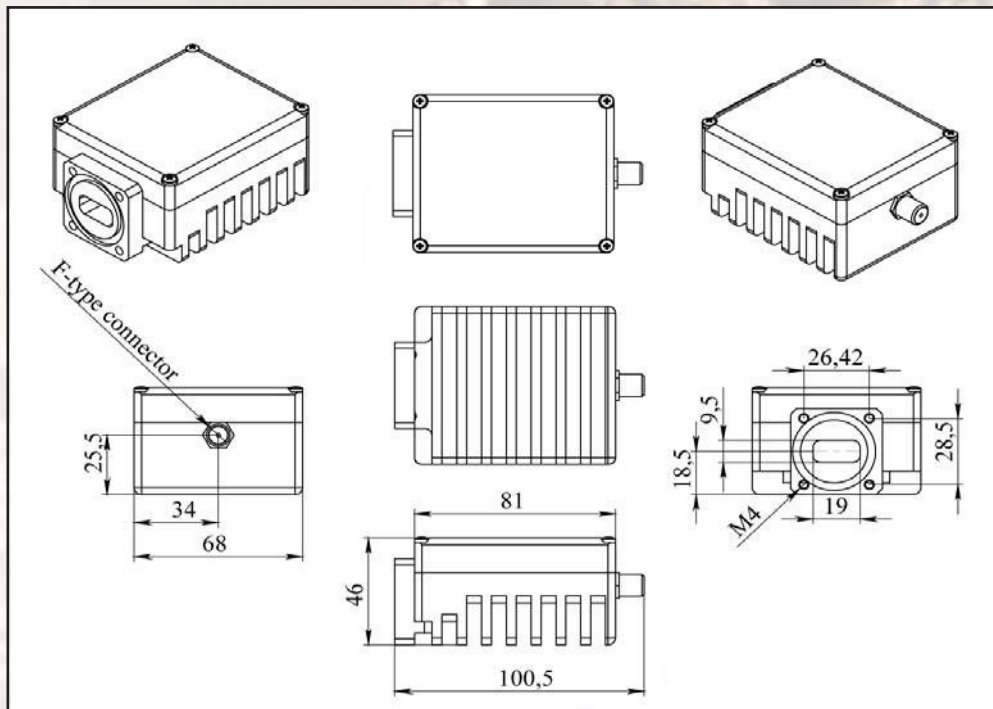
- ◆ Output frequency 12.75-13.50 GHz
- ◆ L.O. 11.80 GHz
- ◆ Based on GaN technology which enables high efficiency, low energy consumption and high reliability
- ◆ Smallest package size and weight
- ◆ Powered through IF cable
- ◆ Industry's lowest power consumption (<16W)
- ◆ High power efficiency (3W min)
- ◆ RoHS compliant
- ◆ Three-year warranty

ABA3KXL / ABA3KXLF



This smallest and lightest 3W L-To Ku-Band Block Up Converter is based on GaN technology and is designed to be mounted directly on the feed horn. High power efficiency resulting in low current (< 1 amps) consumption allows user to pass DC supply voltage via IF cable. The unit is ideal for network and point to point, data distribution, portable and emergency applications.

Mechanical Drawing



3W Mini Ext. Low Ku-Band Block Up Converter

TECHNICAL SPECIFICATIONS	
RF frequency	12.75 to 13.50 GHz
Local oscillator	11.80 GHz
IF frequency	950 to 1,700 MHz
Output power	3W (+35 dBm min.)
IF connector	N-type or F-type
Power supply	+15 VDC~+24 VDC via IF cable 16 W max
Output interface	WR-75 Grooved
Gain	60 dB nominal
IMD3 (two tones)	-26 dBc max. 2 signal 5MHz 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
TX Gain variation	± 0.5 dB over 40MHz ± 1.8 dB over full band
TX Gain stability over temperature range	± 1.5 dB typ., ± 1.8 dB max.
Requirement for external reference frequency input power	via IF cable
	10 MHz (sine-wave)
	-5 to +5 dBm @ input port
Phase noise – Exceeds Intelsat's standard IESS308/309 and NJRC's specification	-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
Noise power density	Transmit Receive
	-60 dBm/Hz (max.) -155 dBm/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.
Mute	Shut off the BUC in case of L.O. unlocked
Input interface	ABA3KXL ABA3KXLF
	50 Ohm (N-type IF in) 75 Ohm (F-type IF in)
Temperature range (ambient)	
operating	-40 deg C to +55 deg C
storage	-55 deg C to +85 deg C
Vibration & shock	Complies with MIL-STD-810E
Dimensions & housing	100.5 (L) x 68 (W) x 46 (H) mm 3.96" (L) x 2.68" (W) x 1.81" (H)
Weight	0.45 kg (0.99 lbs) max