



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

## KEY FEATURES

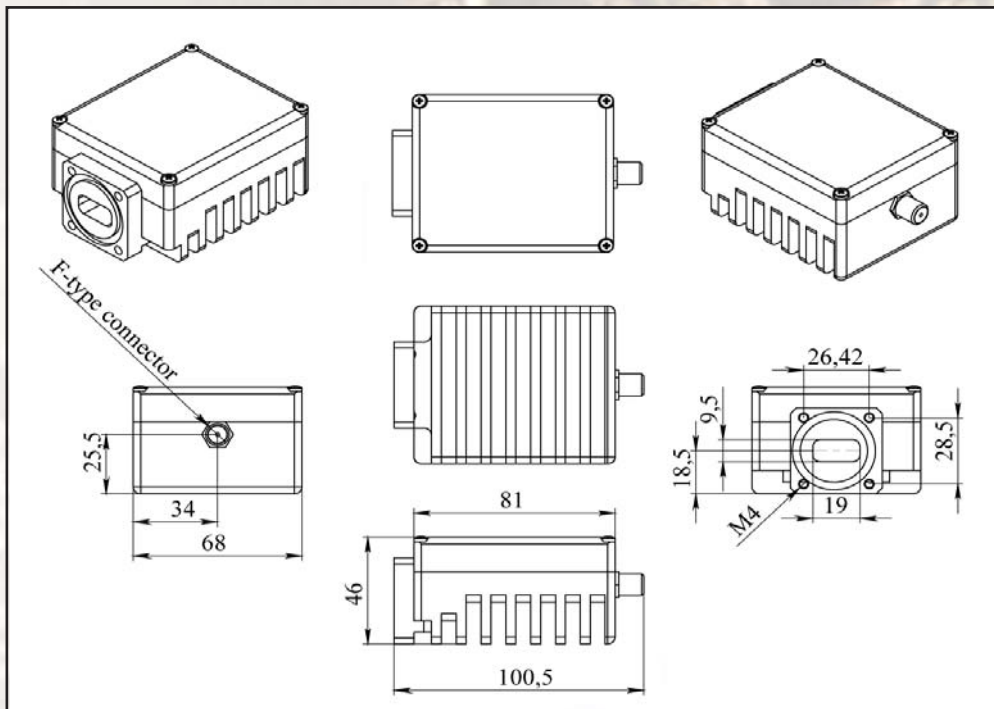
- ◆ Output frequency 12.75-13.50 GHz
- ◆ L.O. 11.80 GHz
- ◆ Based on GaN technology which enables high efficiency, low energy consumption and high reliability
- ◆ Smallest package size and weight
- ◆ Powered through IF cable
- ◆ Industry's lowest power consumption (<16W)
- ◆ High power efficiency (3W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

<b>TECHNICAL SPECIFICATIONS</b>	
<b>RF frequency</b>	12.75 to 13.50 GHz
<b>Local oscillator</b>	11.80 GHz
<b>IF frequency</b>	950 to 1,700 MHz
<b>Output power</b>	3W (+35 dBm min.)
<b>IF connector</b>	N-type or F-type
<b>Power supply</b>	+15 VDC~+24 VDC via IF cable 16 W max
<b>Output interface</b>	WR-75 Grooved
<b>Gain</b>	60 dB nominal
<b>IMD3 (two tones)</b>	-26 dBc max. 2 signal 5MHz apart at P-LINEAR
<b>L.O. leakage</b>	-45 dBm max
<b>Spurious</b>	-50 dBc max
<b>Spectral regrowth</b> (QPSK at 1.5x and OQPSK at 1.0x symbol rate offset with 2dB back-off from rated output power)	-30 dBc
<b>TX Gain variation</b>	± 0.5 dB over 40MHz ± 1.8 dB over full band
<b>TX Gain stability over temperature range</b>	± 1.5 dB typ., ± 1.8 dB max.
<b>Requirement for external reference</b>	via IF cable
<b>frequency</b>	10 MHz (sine-wave)
<b>input power</b>	-5 to +5 dBm @ input port
<b>Phase noise –</b> 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
<b>Noise power density</b>	<b>Transmit</b> -60 dBm/Hz (max.)
	<b>Receive</b> -155 dBm/Hz (max.)
<b>Noise figure</b>	20 dB max
<b>Input V.S.W.R.</b>	2 : 1 max
<b>Output V.S.W.R.</b>	2 : 1 max.
<b>Mute</b>	Shut off the BUC in case of L.O. unlocked
<b>Input interface</b>	<b>ABA3KXL</b> <b>ABA3KXLF</b> 50 Ohm (N-type IF in) 75 Ohm (F-type IF in)
<b>Temperature range (ambient)</b>	
operating	-40 deg C to +55 deg C
storage	-55 deg C to +85 deg C
<b>Vibration &amp; shock</b>	Complies with MIL-STD-810E
<b>Dimensions &amp; housing</b>	100.5 (L) x 68 (W) x 46 (H) mm 3.96" (L) x 2.68" (W) x 1.81" (H)
<b>Weight</b>	0.45 kg (0.99 lbs) max