

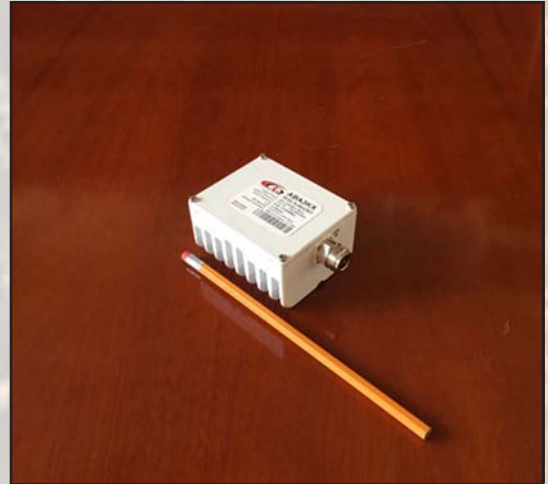


3W Ext. Mini Ku-Band Block Up Converter

KEY FEATURES

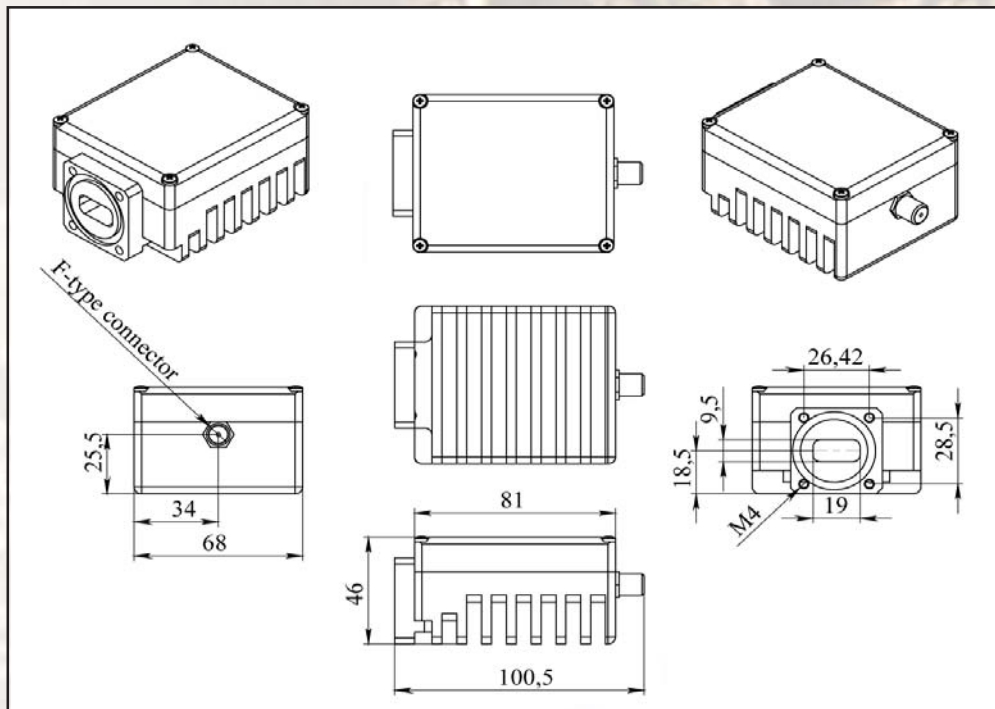
- ◆ Output frequency 13.75-14.50 GHz
- ◆ L.O. 12.80 GHz
- ◆ Based on GaN technology which enables high efficiency, low energy consumption and high reliability
- ◆ Smallest package size and weight
- ◆ Powered through IF cable
- ◆ Industry's lowest power consumption (<16W)
- ◆ High power efficiency (3W min)
- ◆ RoHS compliant

ABA3KX / ABA3KXF



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 Ext. Mini Ku-Band Block Up Converter

TECHNICAL SPECIFICATIONS	
RF frequency	13.75 to 14.5 GHz
Local oscillator	12.80 GHz
IF frequency	950 to 1,700 MHz
Output power @ P1dB min over temperature	3W (+35 dBm min.), P-Linear 1.6W (+32 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)	-30dBc
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	via IF cable
frequency	10 MHz (sine-wave)
input power	-5 to +5 dBm @ input port
Phase noise – Exceeds and 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 -60 dBm/Hz (max.) Receive -155 dBm/Hz (max.)
Noise figure	20 dB max
Input V.S.W.R.	2 : 1 max
Output V.S.W.R.	2 : 1 max.
Mute	Shut off the BUC in case of L.O. unlocked
Input interface	ABA3KX ABA3KXF 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