



2W Ext. Mini Ku-Band Block Up Converter

KEY FEATURES

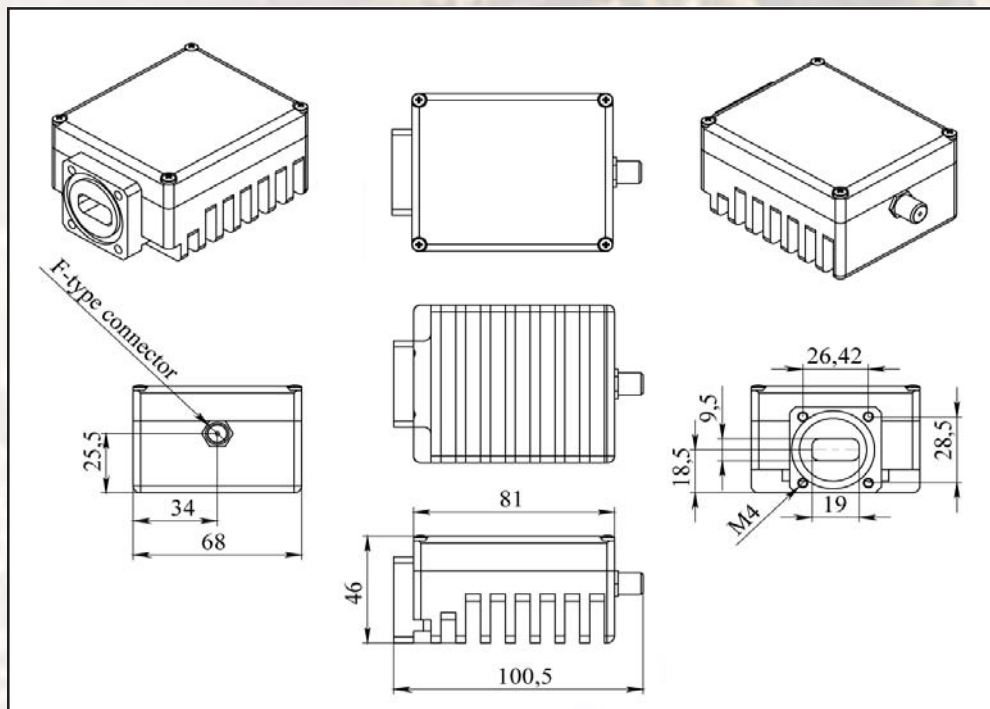
- ◆ Output frequency 13.75-14.50 GHz
- ◆ Based on GaN technology which enables high efficiency, low energy consumption and high reliability
- ◆ Smallest package size and weight
- ◆ Industry's lowest power consumption (<14W)
- ◆ L.O. 12.80 GHz
- ◆ High power efficiency (2W min)
- ◆ RoHS compliant

ABA2KX / ABA2KXF



This smallest and lightest 2W 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





2W Ext. Mini Ku-Band Block Up Converter

TECHNICAL SPECIFICATIONS

RF frequency	13.75 to 14.50 GHz	
Local oscillator	12.80 GHz	
IF frequency	950 to 1,700 MHz	
Output power	2W (+33 dBm min.), P-Linear 1.2W (+30.8 dBm min)	
IF connector	N-type or F-type	
Power supply	+15 VDC~+24 VDC via IF cable 14 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	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	ABA2KX ABA2KXF	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	