



3W Ext. Mini Ku-Band Block Up Converter

KEY FEATURES

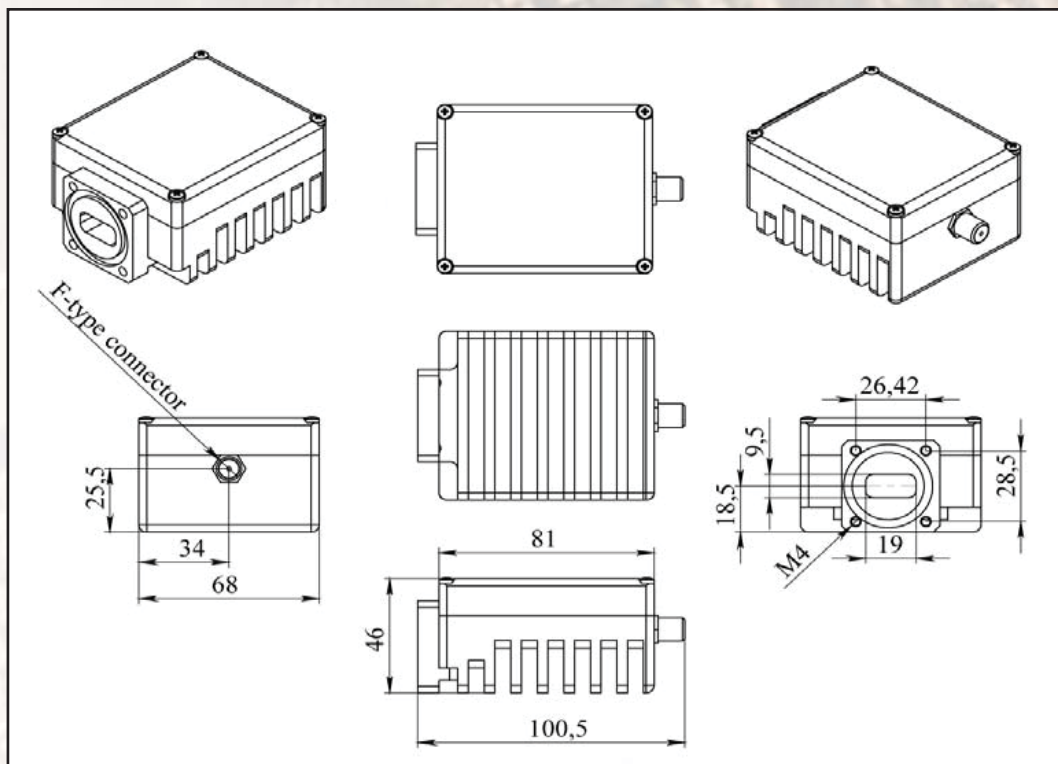
- ◆ Output frequency 13.75-14.50 GHz
- ◆ L.O. 12.80 GHz
- ◆ Based on GaN technology which enables high efficiency, low power consumption and high reliability
- ◆ Industry's lowest power consumption (16W max.)
- ◆ Smallest package size and weight
- ◆ Powered through IF cable
- ◆ High power efficiency (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 14.50 GHz	
Local oscillator	12.80 GHz	
IF frequency	950 to 1,700 MHz	
Output power	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 G	
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	
Requirement for external reference: frequency input power	via IF cable 10 MHz (sine-wave) -5 to +5 dBm @ input port	
TX Gain variation	± 0.5 dB over 40 MHz	
TX Gain stability over temperature range	± 1.8 dB over full band ± 1.5 dB typ., ± 1.8 dB max.	
Phase noise (Exceeds Intelsat's standard IESS308/309)	-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.	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	ABA3KX ABA3KXF	50 Ohm (N-type IF in) 75 Ohm (F-type IF in)
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
IP rating		IP67
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.