



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

KEY FEATURES

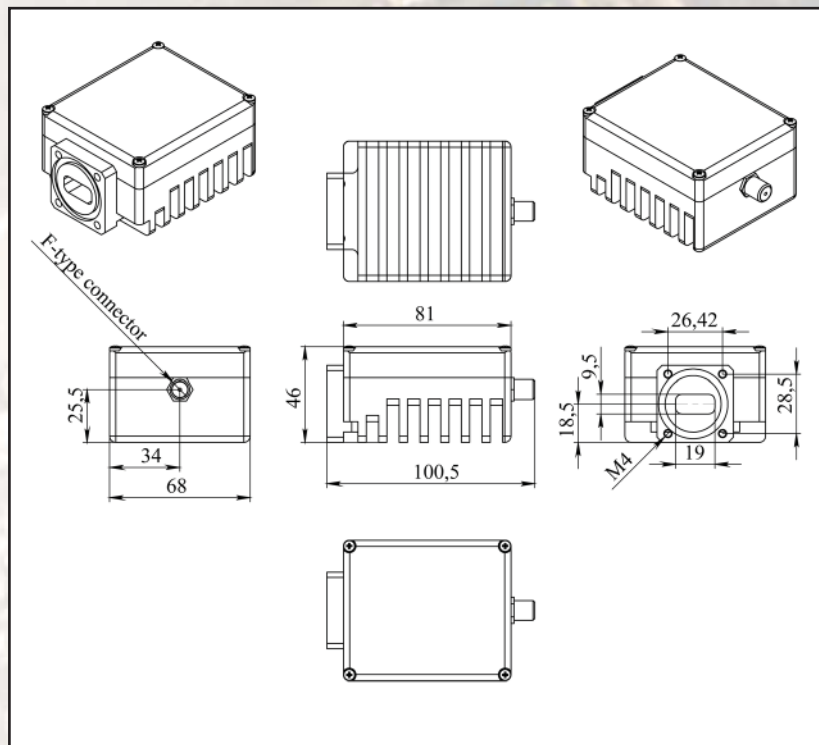
- ◆ Output frequency 13.75-14.75 GHz
- ◆ L.O. 12.80 GHz
- ◆ Based on GaN technology which enables high efficiency, low power consumption and high reliability
- ◆ Industry's lowest power consumption (20W max.)
- ◆ Auto-ranging powering option 15 - 30 VDC
- ◆ Smallest package size and weight
- ◆ Digital temperature compensation
- ◆ RoHS compliant

ABA3GKX / ABA3GKXF



This smallest and lightest 3W L-To Ku-Band Block Up Converter covers Full 13.75 to 14.75 GHz frequency band. Incomparable low power consumption (< 1 amp) allows to use the BUC with any modem without an external power supply. The unit is ideal for portable and mobile applications.

Mechanical Drawing





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

TECHNICAL SPECIFICATIONS	
RF frequency	13.75 to 14.75 GHz
Local oscillator	12.80 GHz
IF frequency	950 to 1,950 MHz
Output power	3W (+34.3 dBm typ.)
IF connector	N-type or F-type
Power supply auto-ranging	+15 ~ +30 VDC via IF cable, 20 W typ.
Output interface	WR-75 G
Gain	58 dB nominal
IMD3 (two tones)	-26 dBc max. 2 signal 5 MHz apart at P-LINEAR
L.O. leakage	-34 dBm max
Spurious	-60 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)	-55 dBc/Hz max. @ 10 Hz
	-66 dBc/Hz max. @ 100 Hz
	-77 dBc/Hz max. @ 1 KHz
	-81 dBc/Hz max. @ 10 KHz
	-92 dBc/Hz max @ 100 KHz
	-115 dBc/Hz max @ 1 MHz
Noise power density	Transmit -90 dBm/Hz (max)
	Receive -125 dBm/Hz (max)
Mute	Shut off the BUC in case of L.O. unlocked
Noise figure	15 dB max
Input V.S.W.R.	1.5 : 1 max
Output V.S.W.R.	2 : 1 max.
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
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