8W Ext. Low Ku-Band Block Up Converter

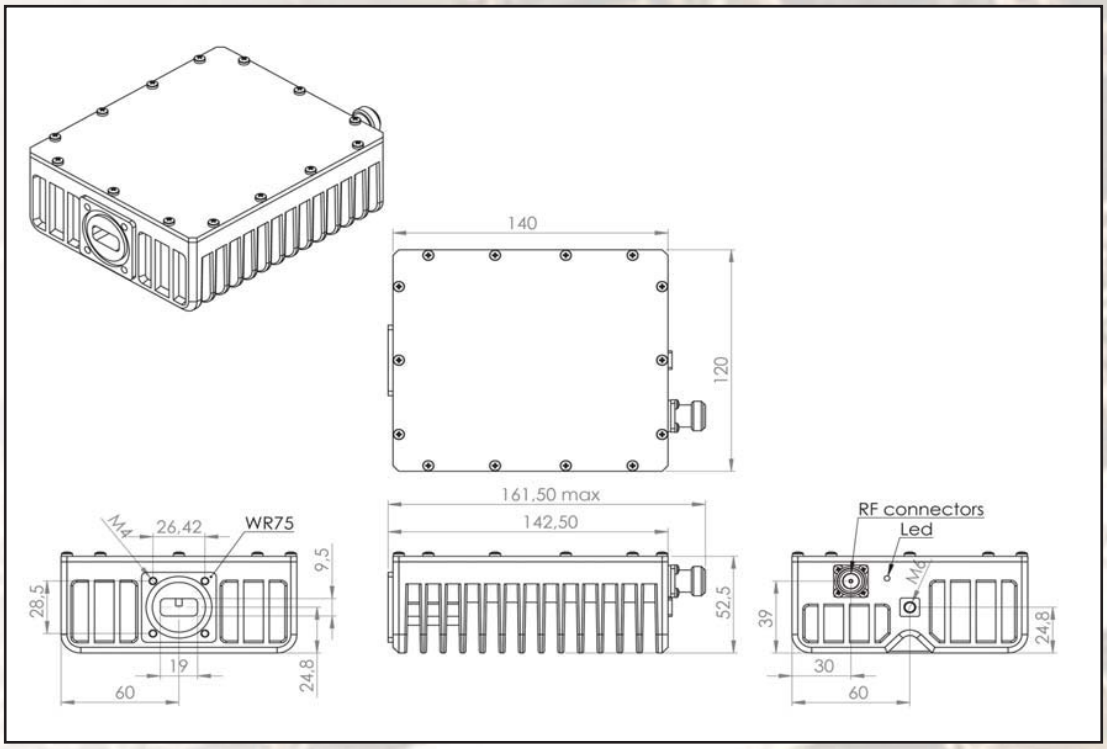
KEY FEATURES

- Output frequency 12.75-13.50 GHz
- Double L.O. (switchable 11.80 & 12.05 GHz)
- Based on GaN technology which enables high efficiency, low power consumption and high reliability
- Incomparable low power consumption (39W max.) - can be powered by some iDirect or similar modems
- Extreme P-Out GaN linearity
- Auto-ranging powering option 15 - 60 VDC
- Digital temperature compensation
- Field-exchangeable (F/N) IF connector
- L.O. lock and amplifier LEDs
- Internal 10MHz high stability reference (optional)
- RoHS compliant

ABE8KXHL / ABE8KXHLF

This smallest and lightest 8W L-To Low Ku-Band Block Up Converter is based on GaN technology. Double L.O. and field-exchangeable connector make unit universal for any Ku-Band application. Incomparable low power consumption allowes the BUC to be powered by iDirect and similar modems. Internal 10MHz reference option enables using the BUC with the modems without 10MHz reference.

Mechanical Drawing



8W Ext. Low Ku-Band Block Up Converter

TECHNICAL SPECIFICATIONS	
RF frequency	12.75 to 13.50 GHz
Dual local oscillator	12.05 GHz and 11.80 GHz
IF frequency	950 to 1,700 MHz
Output power	8W (+39 dBm min)
IF connector	N-type or F-type (field-exchangeable)
Power supply auto-ranging	+15 ~ +60 VDC via IF cable, 39W max.
Output interface	WR-75 G
Gain	62 dB typ.
IMD3 (two tones)	-26 dBc max. 2 signal 5MHz apart at P-LINEAR
L.O. leakage	-45 dBm max.
Spurious	-53 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 ± 1.8 dB over full band
TX Gain stability over temperature range	± 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
	-113 dBc/Hz max. @ 1 MHz
Noise power density **Transmit** **Receive**	-60 dBm/Hz (max.) -150 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
Status LED **Amplifier** **RED** **GREEN** **L.O.** **GREEN** **GREEN blinking** **10MHz** **GREEN** **GREEN blinking** **RED**	 Summary alarm All OK All OK standard L.O. 12.05 GHz All OK extended L.O. 11.80 GHz External 10MHz reference Internal 10MHz reference No 10MHz reference detected
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	140 (L) x 120 (W) x 52.5 (H) mm 5.51" (L) x 4.72" (W) x 2.06" (H)
Weight	1.3 kg (2.9 lbs.) max.