6W Ext. Ku-Band Block Up Converter

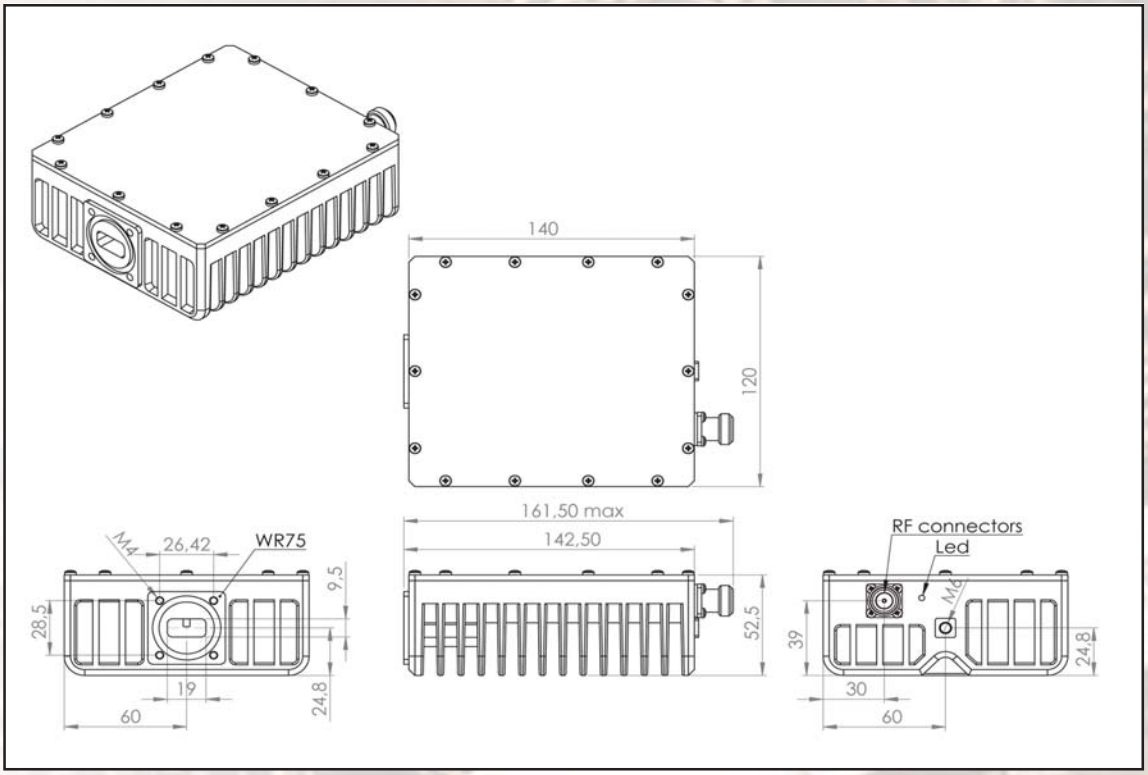
KEY FEATURES

- Output frequency 13.75-14.50 GHz
- Based on GaN technology which enables high efficiency, low energy consumption and high reliability
- Double - L.O. (switchable 12.80 and 13.05 GHz)
- Incomparable low power consumption (35W max)- can be powered by iDirect or similar modems
- Extreme P-Out GaN linearity
- Digital temperature compensation
- L.O. lock and amplifier LEDs
- Field-exchangeable (F/N) IF connector
- Internal 10MHz high stability 10^{-8} reference (optional)
- RoHS compliant
- Three-year warranty

ABA6KXH / ABA6KXHF

This smallest and lightest 6W L-To 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



GaN Based Product

6W Ext. Ku-Band Block Up Converter

TECHNICAL SPECIFICATIONS

RF frequency	13.75 – 14.50 GHz
Local Oscillator	12.80 GHz and 13.05 GHz
IF frequency	950 to 1,700 MHz
Output power	6W (+38 dBm min)
IF connector	N-type or F-type (field-exchangeable)
Power supply - auto-ranging	+15~+30 VDC via IF cable, 35 W max
Internal 10MHz high stability reference	10^{-8}
Output interface	WR-75 G
Gain	60 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)	-30dBc
TX Gain variation **TX Gain stability over temperature range**	± 0.5 dB over 40 MHz ± 1.8 dB over full band ± 1.5 dB typ., ± 1.8 dB max
Requirement for external reference frequency input power	via IF cable 10 MHz (sine-wave) -5 to +5 dBm @ input port
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.	2 : 1 max
Output V.S.W.R.	2 : 1 max.
Mute	Shut off the BUC in case of L.O. unlocked
Status LED **RED** **GREEN** **YELLOW** **YELLOW blinking**	Summary alarm All OK All OK standard L.O. 13.05 GHz All OK extended L.O. 12.80 GHz
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	140 (L) x 120 (W) x 52 (H) mm 5.6" (L) x 4.8" (W) x 2.08" (H)
Weight	1.3 kg (2.9 lbs.) max