



10W Ext. Low Ku-Band Block Up Converter

KEY FEATURES

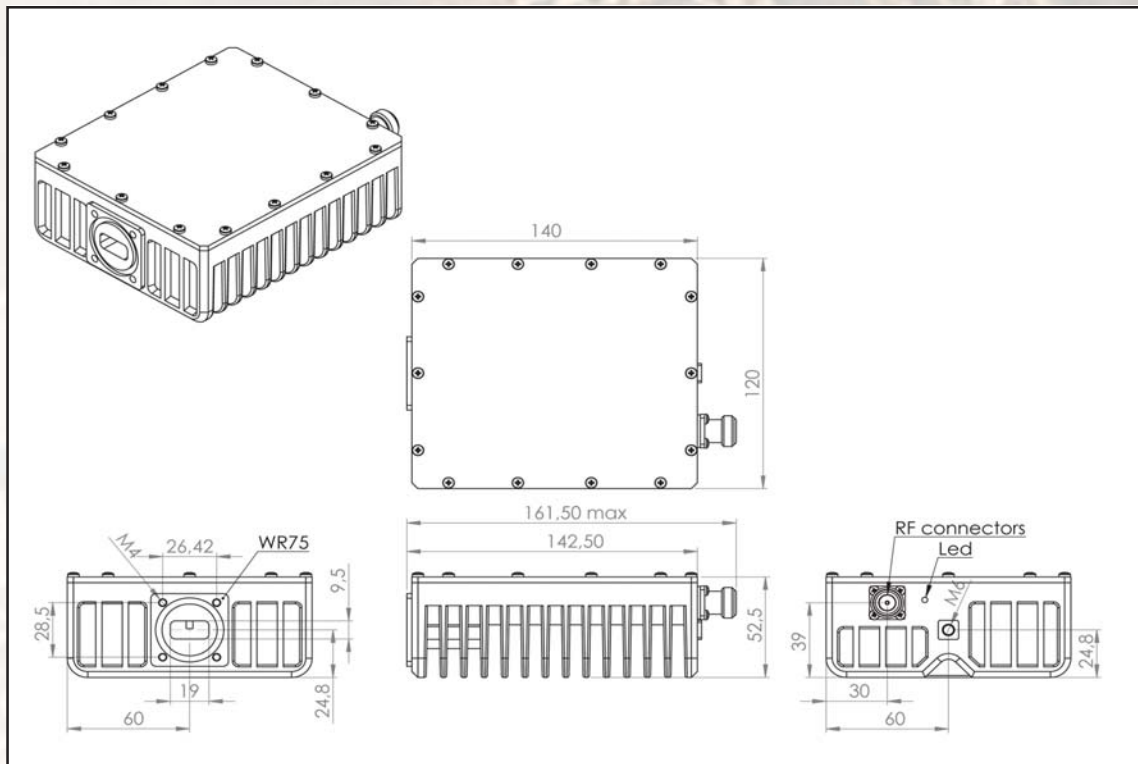
- ◆ Output frequency 12.75-13.50 GHz
- ◆ Based on GaN technology which enables high efficiency, low energy consumption and high reliability
- ◆ Double - L.O. (switchable 11.80 and 12.05 GHz)
- ◆ Incomparable low power consumption (45W max)- can be powered by iDirect or similar modems
- ◆ Extreme P-Out 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

ABE10KXHL/ABE10KXHLF



This smallest and lightest 10W 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 allows 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





10W Ext. Low Ku-Band Block Up Converter

TECHNICAL SPECIFICATIONS

RF frequency	12.75 – 13.50 GHz
Local Oscillator	11.80 GHz and 12.05 GHz
IF frequency	950 to 1,700 MHz
Output power	10W (+40 dBm min)
IF connector	N-type or F-type (field-exchangeable)
Power supply - auto-ranging	+15~+60 VDC via IF cable, 45W max
Internal 10MHz high stability reference	10 ⁻⁸
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 3dB back-off from rated output power)	-30dBc
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
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 -60 dBm/Hz (max) Receive -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 if L.O. unlocked
Status LED RED GREEN YELLOW YELLOW blinking	Summary alarm All OK All OK standard L.O. 12.05 GHz All OK extended L.O. 11.80 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