

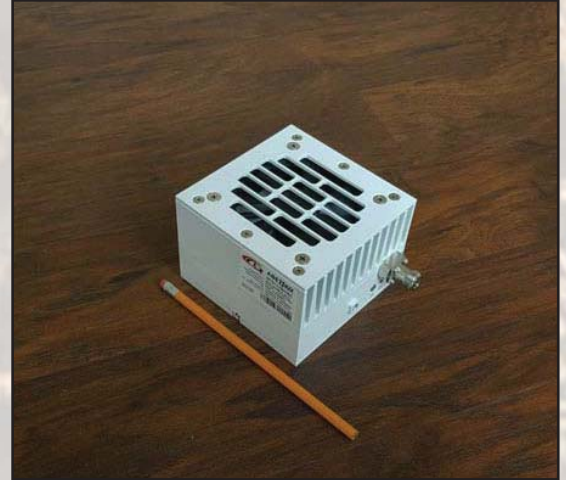


## 10W Ext. Ku-Band Block Up Converter

### KEY FEATURES

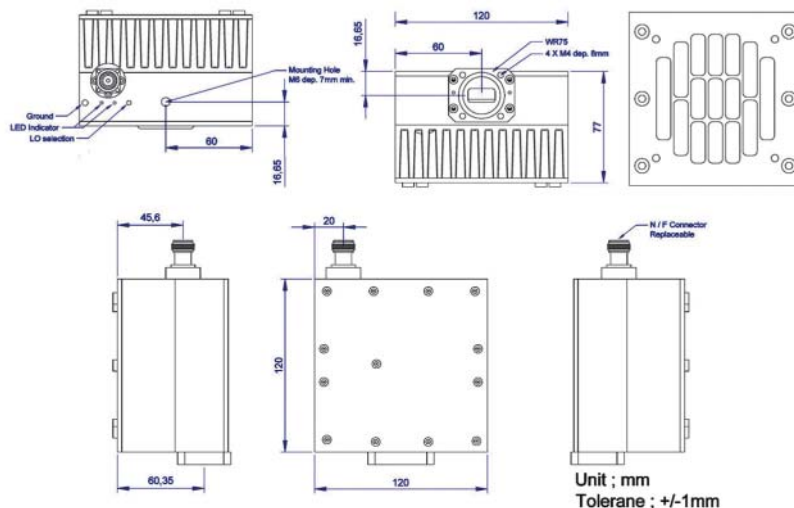
- ◆ Output frequency 13.75-14.50 GHz
- ◆ Double L.O. (switchable 12.80 & 13.05 GHz)
- ◆ Based on GaN technology which enables high efficiency, low power consumption and high reliability
- ◆ Incomparable low power consumption (58W max.) - can be powered by some iDirect or similar modems
- ◆ Extreme P-Out GaN linearity
- ◆ Auto-ranging powering option 15 - 60 VDC
- ◆ Internal auto-sensing and controllable high stability 10MHz reference (optional)
- ◆ Digital temperature compensation
- ◆ Field-exchangeable (F/N) IF connector
- ◆ M&C - combined RS-232/485,FSK,Ethernet (optional)
- ◆ RoHS compliant

### ABE10KFX / ABE10KFXF



This smallest and lightest 10W L-To Ku-Band Block Up Converter is based on GaN technology. Incomparable low power consumption, double L.O., field-exchangeable connector, internal 10 MHz reference, and it is powered either with 24 or 48 VDC and consumes less than 58W. The unit is ideal for portable and mobile applications.

### Mechanical Drawing





## 10W Ext. Ku-Band Block Up Converter

TECHNICAL SPECIFICATIONS	
<b>RF frequency</b>	14.00 to 14.50 GHz 13.75 to 14.50 GHz
<b>Dual local oscillator</b>	13.05 GHz and 12.80 GHz
<b>IF frequency</b>	950 to 1,700 MHz
<b>Output power</b>	10W (+40 dBm min) 5W P-Linear (+37 dBm min)
<b>IF connector</b>	N-type or F-type (field-exchangeable)
<b>Power supply auto-ranging</b>	+15 ~ +60 VDC via IF cable, 58W max.
<b>Output interface</b>	WR-75 G
<b>Gain</b>	60 dB min., 66 dB max.
<b>IMD3 (two tones)</b>	-28 dBc max.
<b>L.O. leakage</b>	-45 dBm max.
<b>Spurious</b>	-50 dBc max.
<b>Spectral regrowth</b> (QPSK at 1.5x and OQPSK at 1.0x symbol rate offset with 2dB back-off from rated output power)	-30 dBc
<b>Requirement for external reference:</b> frequency input power	via IF cable 10 MHz (sine-wave) -5 to +5 dBm @ input port
<b>Gain variation</b> over 40 MHz over 500 MHz	+/-1.5 dB +/-1.4 dB
<b>Over operating temperature</b>	+/-1.3 dB @ fixed frequency
<b>Phase noise</b>  (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
<b>Noise power density</b>  <b>Transmit</b> <b>Receive</b>	-60 dBm/Hz (max.) -151 dBm/Hz (max.)
<b>Noise figure</b>	20 dB max.
<b>Input V.S.W.R.</b>	1.5 : 1 max.
<b>Output V.S.W.R.</b>	1.5 : 1 max.
<b>M&amp;C</b>	RS-232 and RS-485, Ethernet, FSK (optional)
<b>Mute</b>	Shut off the BUC in case of L.O. unlocked
<b>FSK</b>	Multiplexed on TX IFL, compatible with Comtech and Paradigm
<b>Status LED</b> <b>Amplifier</b>  <b>L.O.</b>  <b>10MHz</b>	<b>RED</b> <b>GREEN</b> <b>GREEN</b> <b>GREEN blinking</b> <b>GREEN</b> <b>GREEN blinking</b> <b>RED</b>  Summary alarm All OK All OK standard L.O. 13.05 GHz All OK extended L.O. 12.80 GHz External 10MHz reference Internal 10MHz reference No 10MHz reference detected
<b>Temperature range (ambient)</b> operating storage	-40 deg C to +55 deg C -55 deg C to +85 deg C
<b>Vibration and shock</b>	Complies with MIL-STD-810E
<b>IP rating</b>	IP67
<b>Dimensions &amp; housing</b>	120 (L) x 120 (W) x 77 (H) mm 4.72" (L) x 4.72" (W) x 3.03" (H)
<b>Weight</b>	1.8 kg (4.0 lbs) max.