16 W Ext. Ku-Band Block Up Converter

KEY FEATURES
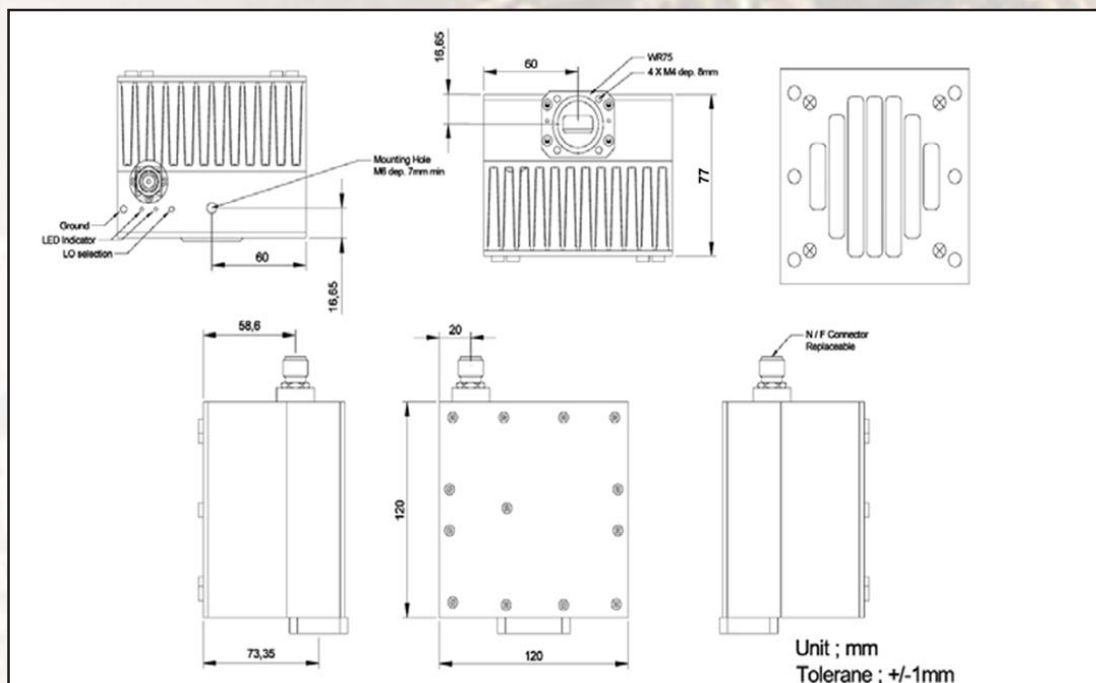
- **Output frequency 13.75-14.50 GHz**
- **Smallest and lightest**
- **Double - L.O. (electronically and manually switchable (12.80 / 13.05 GHz)**
- **Auto-ranging 15-60 VDC**
- **Incomparable Low power consumption (92W max)**
- **Digital temperature compensation**
- **L.O. lock and amplifier LEDs**
- **Field-exchangeable (F/N) IF connector**
- **M&C - combined RS-232/485/FSK, Ethernet (optional)**
- **Internal 10MHz high stability 10^{-8} reference (optional)**
- **Three-year warranty**
- **RoHS compliant**

ABE16KX / ABE16KXF

This smallest and lightest 16W L-To Ku-Band Block Up Converter is designed to be mounted on a feed horn. The unit is ideal for portable and mobile applications. Double – L.O. feature makes unit universal for Ku-Band requirements. It is powered either with 24 or 48 VDC and consumes less than 92W.

Mechanical Drawing

16 W Ext. Ku-Band Block Up Converter

TECHNICAL SPECIFICATIONS	
RF frequency	14.00 to 14.50 GHz 13.75 to 14.50 GHz
Local oscillator- electronically and manually switchable	13.05 GHz and 12.80 GHz
IF frequency	950 to 1,700 MHz
Output power @ P1dB min over temp.	16W (+42 dBm min)
IF connector	N-type or F-type (field-exchangeable)
Power supply- auto-ranging	+15~+60 VDC via IF cable, 92 W max
Internal 10MHz high stability reference	10^{-8}
Output interface	WR-75 G
Gain variation over 40 MHz ** over 500 MHz** **Over operating temperature**	0.8 dB p_p 1.4 dB p_p 0.75 dB p_p @ fixed frequency
Gain	65 dB min., 68 dB nominal
IMD3 (3dB back off P1dB)	-28 dBc max
L.O. leakage	-33 dBm max
Spurious	-50 dBc max
Requirement for external reference ** frequency** ** input power**	via IF cable 10MHz (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
M&C	RS-232 and RS-485, Ethernet
FSK	Multiplexed on TX IFL, compatible with Comtech and Paradigm
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
Environmental Operating Temperature Storage Temperature Relative Humidity	 -40 deg C to +65 deg C -40 deg C to +75 deg C Up to 100%, Complies with IP65 Rating
Dimensions & housing	120 (L) x 120 (W) x 77 (H) mm 4.72" (L) x 4.72" (W) x 3.03" (H)
Weight	1.8 kg (4.0 lbs) max