

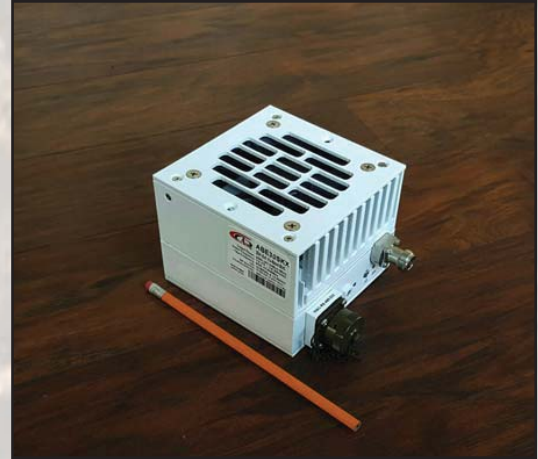


30W Ext. Ku-Band Block Up Converter

KEY FEATURES

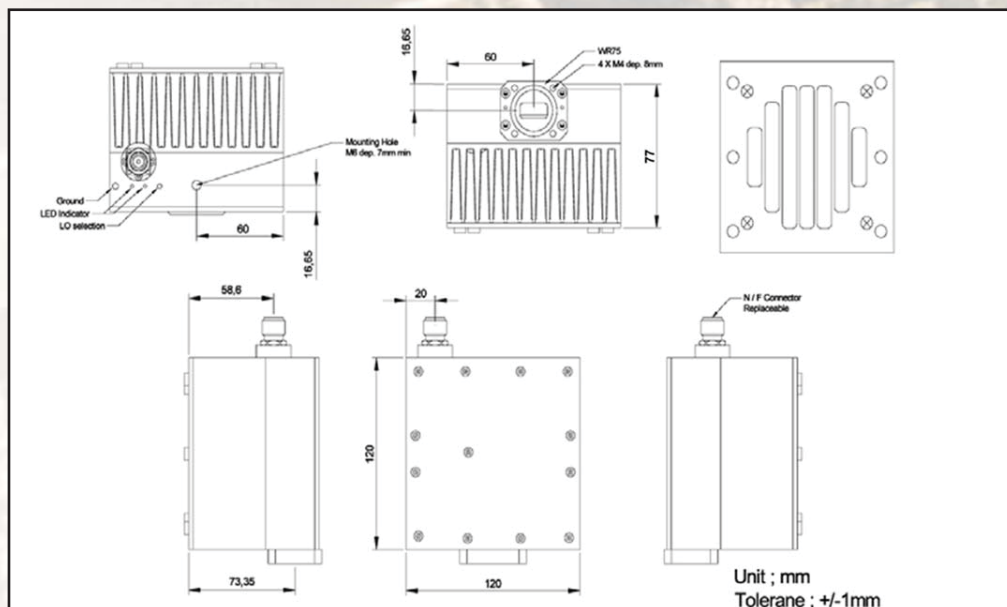
- ◆ Output frequency 13.75-14.50 GHz
- ◆ Smallest and lightest
- ◆ Double L.O. (switchable 12.80 & 13.05 GHz)
- ◆ Incomparable low power consumption (176W max.)
- ◆ Auto-ranging powering option 30 - 60 VDC
- ◆ Digital temperature compensation
- ◆ Field-exchangeable (F/N) IF connector
- ◆ Internal auto-sensing and controllable 10MHz high stability reference (optional)
- ◆ L.O. lock and amplifier LEDs
- ◆ M&C - combined RS-232/485/Ethernet (HTTP and SNMP) and optional FSK
- ◆ RoHS compliant

ABE30SKX / ABE30SKXF



This smallest and lightest 30W 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 48 VDC and consumes less than 176W.

Mechanical Drawing





30W Ext. Ku-Band Block Up Converter

TECHNICAL SPECIFICATIONS		
RF frequency		14.0 to 14.50 GHz 13.75 to 14.50 GHz
Dual local oscillator		12.80 GHz and 13.05 GHz
IF frequency		950 to 1,700 MHz
Output power		30W (+44.8 dBm min.) (+45dBm Typ.) 15.7W P-Linear (+41.9 dBm min.)
IF connector		N-type or F-type (field-exchangeable)
Power supply auto-ranging		30 ~ 60 VDC via IF cable, 176W max.
Output interface		WR-75 G
Gain		65 dB min., 68 dB nominal
IMD3 (two tones)		-26 dBc max. 2 signal 5 MHz 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:		via IF cable
frequency		10 MHz (sine-wave)
input power		-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)		-55 dBc/Hz max. @ 10 Hz -65 dBc/Hz max. @ 100 Hz -75 dBc/Hz max. @ 1 KHz -85 dBc/Hz max. @ 10 KHz -95 dBc/Hz max. @ 100 KHz -115 dBc/Hz max. @ 1 MHz
Noise power density	Transmit	-80 dBm/Hz (max.)
	Receive	-125 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.
M&C		RS-232 and RS-485, Ethernet (HTTP and SNMP)
FSK		Multiplexed on TX IFL, compatible with Comtech and Paradigm
Mute		Shut off the BUC in case of L.O. unlocked
Status LED		Summary alarm
Amplifier	RED	All OK
	GREEN	All OK standard L.O. 13.05 GHz
L.O.	GREEN	All OK extended L.O. 12.80 GHz
	GREEN blinking	External 10MHz reference
10MHz	GREEN	Internal 10MHz reference
	GREEN blinking	No 10MHz reference detected
	RED	
Temperature range (ambient)		-40 deg C to +55 deg C
operating		-55 deg C to +75 deg C
storage		
Vibration and shock		Complies with MIL-STD-810E
IP rating		IP67
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.