



20W Ext. Low Ku-Band Block Up Converter

KEY FEATURES

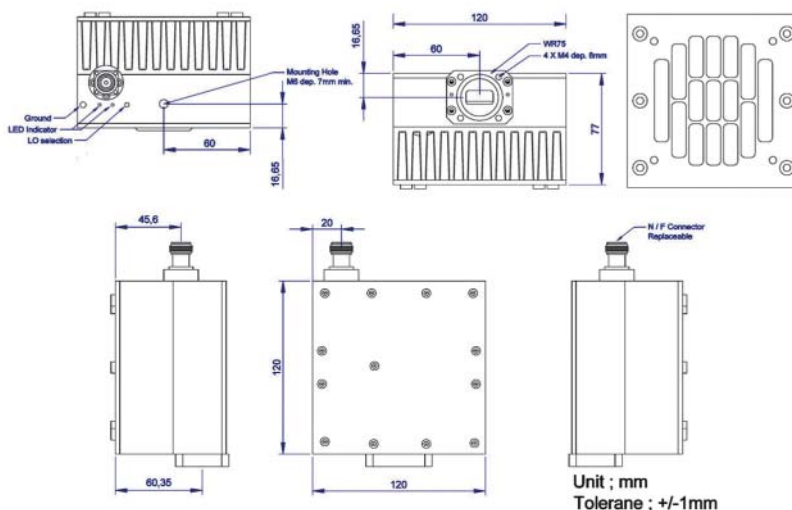
- ◆ Output frequency 12.75-13.50 GHz
- ◆ Double L.O. (switchable 11.80 & 12.05 GHz)
- ◆ Based on GaN technology which enables high efficiency, low power consumption and high reliability
- ◆ Incomparable low power consumption (98W max.)
- ◆ Auto-ranging powering option 15 - 60 VDC
- ◆ Internal auto-sensing and controllable high stability 10MHz reference (optional)
- ◆ Digital temperature compensation
- ◆ Field-exchangeable (F/N) IF connector
- ◆ Optional M&C - combined RS-232/485 / Ethernet (HTTP and SNMP ver. 2 & 3) / FSK (optional)
- ◆ RoHS compliant

ABE20KXL / ABE20KXLF



This smallest and lightest 20W L-To Low 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 98W. The unit is ideal for portable and mobile applications.

Mechanical Drawing





20W Ext. Low Ku-Band Block Up Converter

TECHNICAL SPECIFICATIONS		
RF frequency		13.00 to 13.50 GHz 12.75 to 13.50 GHz
Dual local oscillator		12.05 GHz and 11.80 GHz
IF frequency		950 to 1,700 MHz
Output power		20W (+43 dBm min) 10W (+40 dBm) P-Linear
IF connector		N-type or F-type (field-exchangeable)
Power supply auto-ranging		+15 ~ +60 VDC via IF cable, 98W max.
Output interface		WR-75 G
Gain		64 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		-50 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: frequency input power		via IF cable 10 MHz (sine-wave) -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)		-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	-80 dBm/Hz (max.) -125 dBm/Hz (max.)
Noise figure		15 dB max.
Input V.S.W.R.		1.5 : 1 max.
Output V.S.W.R.		1.5 : 1 max.
M&C (optional)		RS-232/485 / Ethernet / FSK (optional)
Mute		Shut off the BUC in case of L.O. unlocked
Status LED Amplifier L.O. 10MHz	RED GREEN GREEN GREEN blinking GREEN GREEN blinking RED	Summary alarm All OK All OK standard L.O. 12.05 GHz All OK extended L.O. 11.80 GHz External 10MHz reference Internal 10MHz reference No 10MHz reference detected
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
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.