



8W Ext. Low Ku-Band Block Up Converter

KEY FEATURES

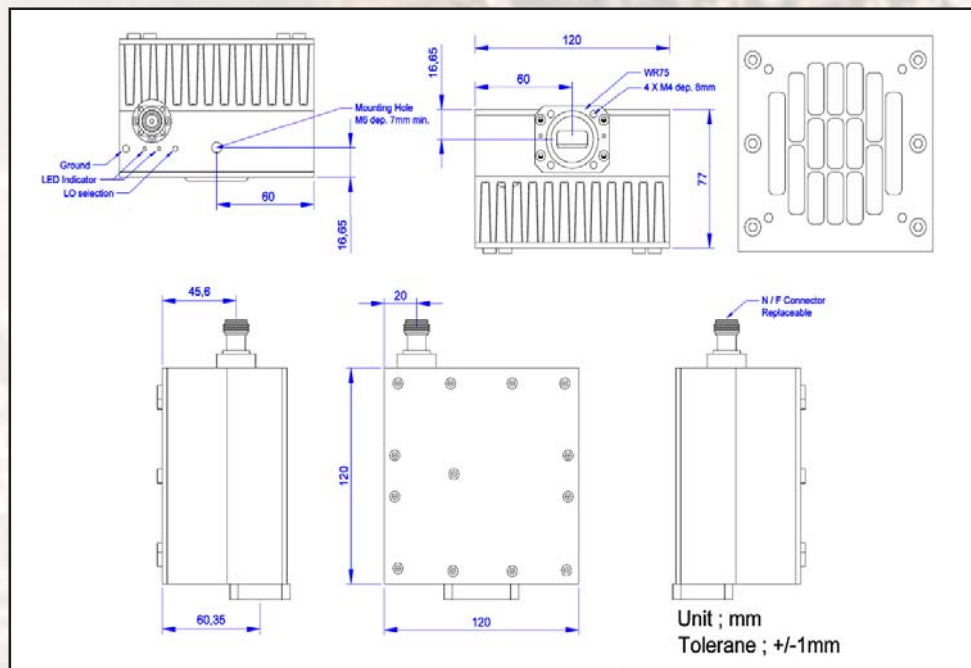
- ◆ Output frequency 12.75-13.50 GHz
- ◆ Based on GaN technology which enables high efficiency, low energy consumption and high reliability
- ◆ Double - L.O. (electronically and manually switchable 11.80 and 12.05 GHz)
- ◆ Extreme P-Out GaN linearity
- ◆ Auto-ranging power 15-60 VDC
- ◆ Incomparable low power consumption (55W max) - can be powered by some iDirect or similar modems
- ◆ 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)
- ◆ RoHS Compliant
- ◆ Three-year warranty

ABE8KFXL / ABE8KFXLF



This smallest and lightest 8W L-To Ku-Band Block Up Converter is based on GaN technology. Incomparable low power consumption, double L.O., Field- Exchangeable connector and auto-ranging (24 or 48 VDC) powering features make unit universal for any Ku-Band application. M&C (FSK) capability enables troubleshooting, monitoring and controlling the BUC. User can choose internal 10MHz high stability reference if the corresponding modulator does not provide it.

Mechanical Drawing





8W Ext. Low Ku-Band Block Up Converter

TECHNICAL SPECIFICATIONS

RF frequency	L.O. 12.05 GHz L.O. 11.80 GHz	13.00 to 13.50 GHz 12.75 to 13.50 GHz
Local oscillator- electronically and manually switchable		12.05 GHz and 11.80 GHz
IF frequency		950 to 1,700 MHz
Output power		8W (+39 dBm min)
IF connector		N-type or F-type (field-exchangeable)
Power supply - auto-ranging		+15~+60 VDC via IF cable, 55 W max
Internal 10MHz high stability reference		10 ⁻⁸
Output interface		WR-75 G
Gain		60 dB min., 66 dB max
IMD3		-28 dBc max
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)		-30dBc
Gain variation over 40 MHz over 500 MHz		+/-1.5 dB +/-1.4 dB
Over operating temperature		+/-1.3 dB @ fixed frequency
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 Receive	-60 dBm/Hz (max) -151 dBm/Hz (max)
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
M&C		RS-232 and RS-485, Ethernet
FSK		Multiplexed on TX IFL, compatible with Comtech . and Paradigm
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		120 (L) x 120 (W) x 77 (H) mm 4.72" (L) x 4.72" (W) x 3.28" (H)
Weight		1.4 kg (3.0 lbs) max