



40W Ext. Low Ku-Band Block Up Converter

KEY FEATURES

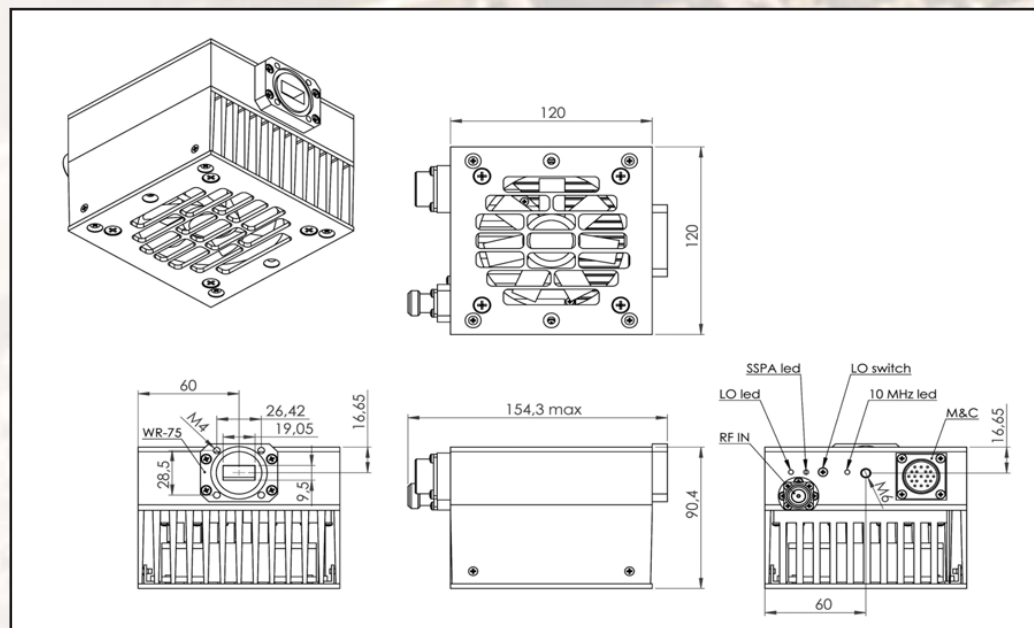
- ◆ Output frequency 12.75-13.50 GHz
- ◆ Smallest and lightest
- ◆ Double L.O. (switchable 11.80 & 12.05 GHz)
- ◆ Incomparable low power consumption (192W max.)
- ◆ Auto-ranging powering option 30 - 60 VDC
- ◆ Extreme P-Out GaN linearity (46 dBm)
- ◆ Digital temperature compensation
- ◆ Field-exchangeable (F/N) IF connector
- ◆ Internal auto-sensing and controllable 10MHz high stability reference (optional)
- ◆ Amplifier, L.O. and 10 MHz Reference Status LEDs
- ◆ Optional M&C - combined RS-232/485 / Ethernet (HTTP and SNMP ver. 2 & 3) / FSK (optional)
- ◆ RoHS compliant

ABC40SKXL / ABC40SKXLF



This smallest and lightest 40W Ext. Low 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. The unit can use either external or internal 10MHz reference.

Mechanical Drawing





40W Ext. Low Ku-Band Block Up Converter

TECHNICAL SPECIFICATIONS		
RF frequency		12.75 to 13.50 GHz
Dual local oscillator		11.80 GHz and 12.05 GHz
IF frequency		950 to 1,700 MHz
Output power		40W (+46 dBm min, +46.6 typ.) 23W (+43.6 dBm min.) P-Linear
IF connector		N-type or F-type (field-exchangeable)
Power supply auto-ranging		30 ~ 60 VDC via IF cable, 192W max.
Output interface		WR-75 G
Gain		67 dB min., 70 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)		-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 Receive	-80 dBm/Hz (max.) -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 (optional)		RS-232/485 / Ethernet / FSK (optional)
Mute		Shut off the HPA if L.O. unlocked
Status LED Amplifier	RED	Summary alarm
	GREEN	All OK
L.O.	GREEN	All OK standard L.O. 12.05 GHz
	GREEN blinking	All OK extended L.O. 11.80 GHz
10MHz	GREEN	External 10MHz reference
	GREEN blinking	Internal 10MHz reference
	RED	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 90.4 (H) mm 4.72" (L) x 4.72" (W) x 3.61" (H)
Weight		1.8 kg (4.0 lbs) max.