



## 25W Ext. Ku-Band Block Up Converter

### KEY FEATURES

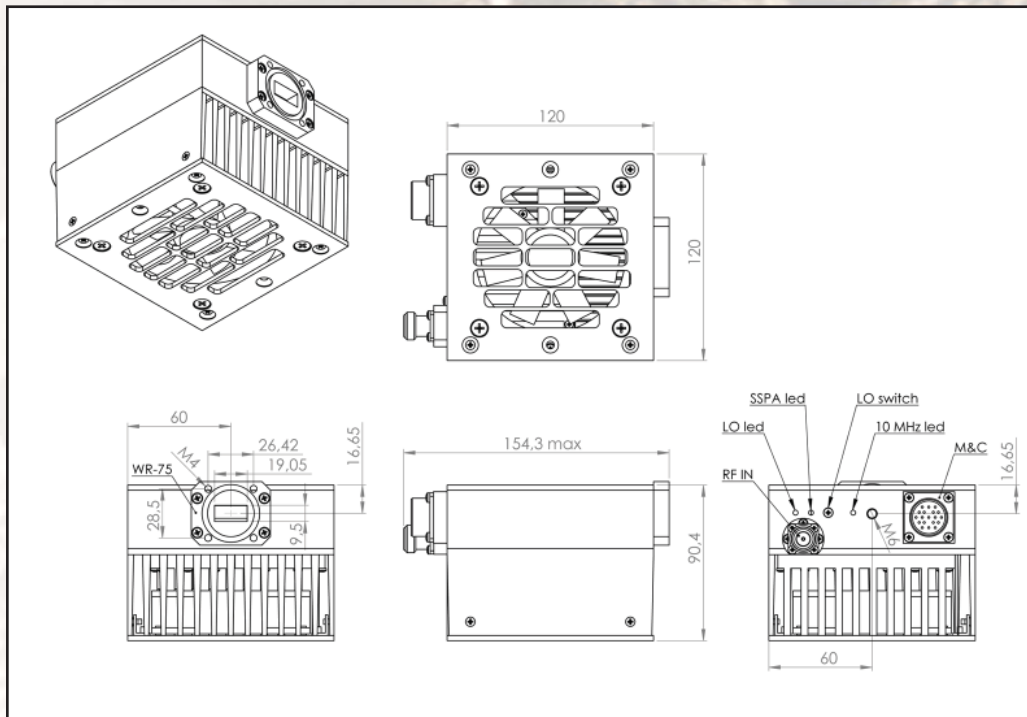
- ◆ Output frequency 13.75-14.50 GHz
- ◆ Double L.O. (switchable 12.80 & 13.05 GHz)
- ◆ Based on GaN technology which enables high efficiency, low power consumption and high reliability
- ◆ Incomparable low power consumption (120 W max.)
- ◆ Auto-ranging powering option 15 - 60 VDC
- ◆ Digital temperature compensation
- ◆ Field-exchangeable (F/N) IF connector
- ◆ Internal auto-sensing and controllable 10MHz high stability reference (optional)
- ◆ M&C - combined RS-232/485 and optional FSK
- ◆ RoHS compliant

### ABE25SKX / ABE25SKXF



This smallest and lightest 25W L-To 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 120W. The unit is ideal for portable and mobile applications.

### Mechanical Drawing





## 25W Ext. Ku-Band Block Up Converter

TECHNICAL SPECIFICATIONS		
<b>RF frequency</b>		14.00 to 14.50 GHz 13.75 to 14.50 GHz
<b>Dual local oscillator</b>		12.80 GHz and 13.05 GHz
<b>IF frequency</b>		950 to 1,700 MHz
<b>Output power</b>		25W (+44 dBm min.) P-Linear 13.1W (+41.1 dBm min.)
<b>IF connector</b>		N-type or F-type (field-exchangeable)
<b>Power supply auto-ranging</b>		15~ 60 VDC via IF cable, 120W max.
<b>Output interface</b>		WR-75 G
<b>Gain</b>		65 dB min., 68 dB nominal
<b>IMD3 (two tones)</b>		-26 dBc max. 2 signal 5 MHz apart at P-LINEAR
<b>L.O. leakage</b>		-45 dBm max.
<b>Spurious</b>		-50 dBc max.
<b>Spectral regrowth</b> (QPSK at 1.5x and OQPSK at 1.0x symbol rate offset with 2dB back-off from rated output power)		-30 dBc
<b>Requirement for external reference:</b> frequency input power		via IF cable 10 MHz (sine-wave) -5 to +5 dBm @ input port
<b>TX Gain variation</b>		± 0.5 dB over 40 MHz ± 1.8 dB over full band
<b>TX Gain stability over temperature range</b>		± 1.5 dB typ., ± 1.8 dB max.
<b>Phase noise</b>  (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
<b>Noise power density</b>	<b>Transmit</b>	-80 dBm/Hz (max.)
	<b>Receive</b>	-125 dBm/Hz (max.)
<b>Noise figure</b>		15 dB max.
<b>Input V.S.W.R.</b>		1.5 : 1 max.
<b>Output V.S.W.R.</b>		1.5 : 1 max.
<b>M&amp;C</b>		RS-232 and RS-485, Ethernet, FSK (optional)
<b>Mute</b>		Shut off the HPA if L.O. unlocked
<b>Status LED</b>		Summary Alarm
<b>Alarm LED</b>	<b>RED</b>	OK
	<b>GREEN</b>	MUTE
<b>L.O.</b>	<b>GREEN blinking</b>	All OK standard L.O. 13.05 GHz
	<b>GREEN</b>	All OK extended L.O. 12.80 GHz
	<b>GREEN blinking</b>	External 10MHz reference
<b>10MHz Reference LED</b>	<b>GREEN</b>	Internal 10MHz reference
	<b>GREEN blinking</b>	No 10MHz reference detected
	<b>RED</b>	
<b>Temperature range (ambient)</b>		-40 deg C to +55 deg C
operating		-55 deg C to +85 deg C
storage		
<b>Vibration and shock</b>		Complies with MIL-STD-810E
<b>IP rating</b>		IP67
<b>Dimensions &amp; housing</b>		120 (L) x 120 (W) x 90.4 (H) mm 4.72" (L) x 4.72" (W) x 3.55" (H)
<b>Weight</b>		1.8 kg (4.0 lbs) max.