

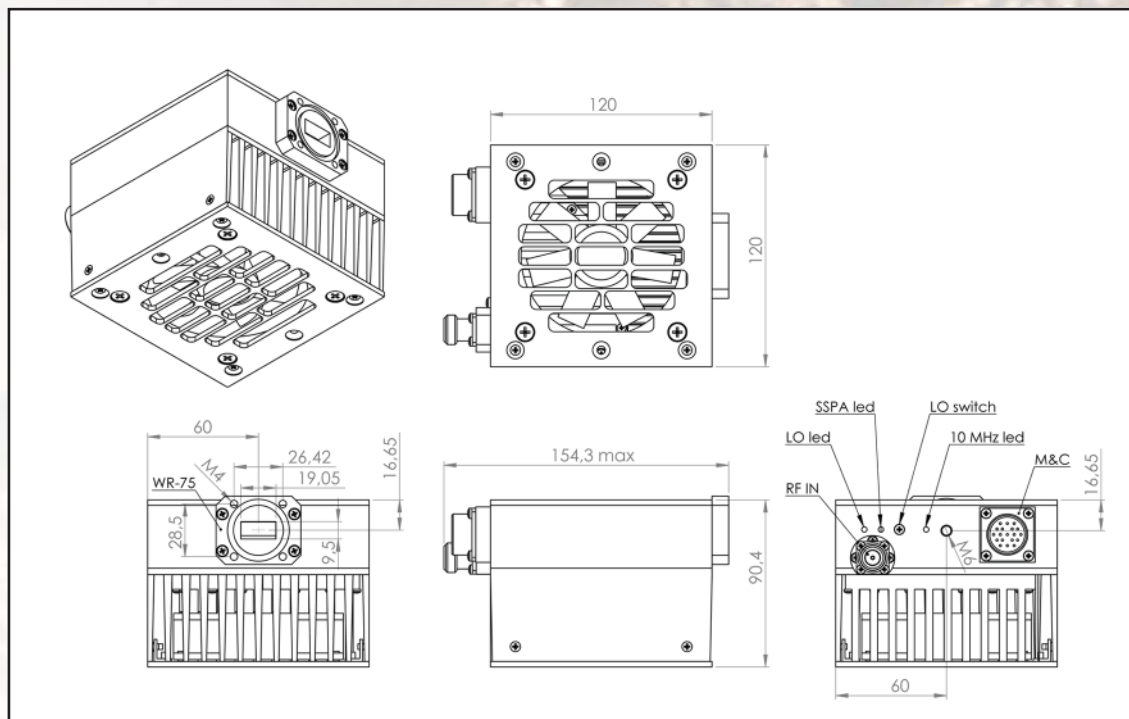


50W Ext. Ku-Band Block Up Converter

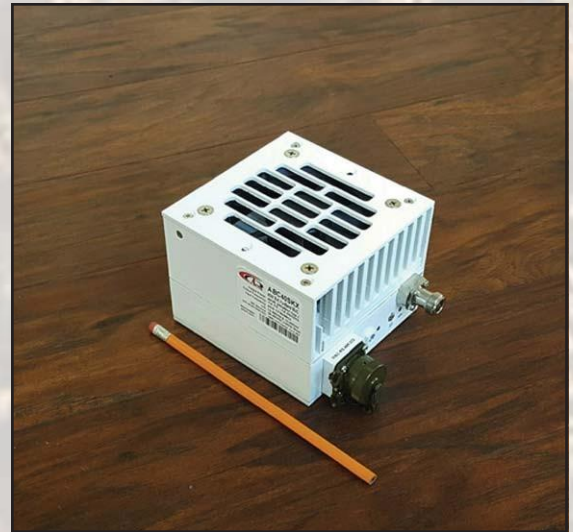
KEY FEATURES

- ◆ 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 (197 W max.)
- ◆ Auto-ranging powering option 30 - 60 VDC
- ◆ Extreme P-Out GaN linearity (47 dBm)
- ◆ Digital temperature compensation
- ◆ Field-exchangeable (F/N) IF connector
- ◆ Internal auto-sensing and controllable 10MHz high stability reference
- ◆ Built-in redundancy option
- ◆ M&C - combined RS-232/485 and optional FSK
- ◆ Ethernet control (HTTP and SNMP ver. 2 and 3)
- ◆ RoHS compliant

Mechanical Drawing



ABC50SKX / ABC50SKXF



This smallest and lightest 50W L-To Ku-Band Block Up Converter is based on GaN technology. Incomparable low power consumption, double L.O., field-exchangeable connector, auto-sensing and controllable internal 10 MHz reference make this unit universal for any Ku-Band application. M&C (FSK) capability enables troubleshooting, monitoring and controlling the BUC.



50W Ext. Ku-Band Block Up Converter

TECHNICAL SPECIFICATIONS		
RF frequency	14.00 to 14.50 GHz 13.75 to 14.50 GHz	
Dual local oscillator	13.05 GHz and 12.80 GHz	
IF frequency	950 to 1,700 MHz	
Output power	50W (+47 dBm min.), 25W (44 dBm) Linear	
IF connector	N-type or F-type (field-exchangeable)	
Power supply auto-ranging	30 ~ 60 VDC via IF cable, 197 W max.	
Output interface	WR-75 G	
Gain	67 dB min., 70 dB nominal	
IMD3 (3dB back off rated output power)	-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: 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	-66 dBm/Hz (max)
	Receive	-157 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	RS-232 and RS-485, Ethernet (HTTP and SNMP), FSK	
Mute	Shut off the HPA if L.O. unlocked	
Status LED		
Amplifier	RED	Summary alarm
	GREEN	All OK
L.O.	YELLOW	All OK standard L.O. 13.05 GHz
	YELLOW blinking	All OK extended L.O. 12.80 GHz
10 MHz	GREEN	External 10MHz reference
	GREEN blinking	Internal 10MHz reference
	RED	No 10MHz reference detected
Temperature range (ambient)		
operating	-40 deg C to +55 deg C	
storage	-55 deg C to +85 deg C	
Vibration and shock	Complies with MIL-STD-810E	
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	