

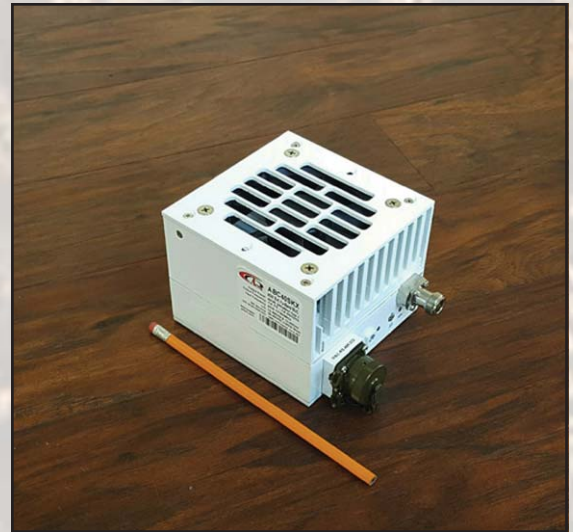


50W Ext. Ku-Band Block Up Converter

KEY FEATURES

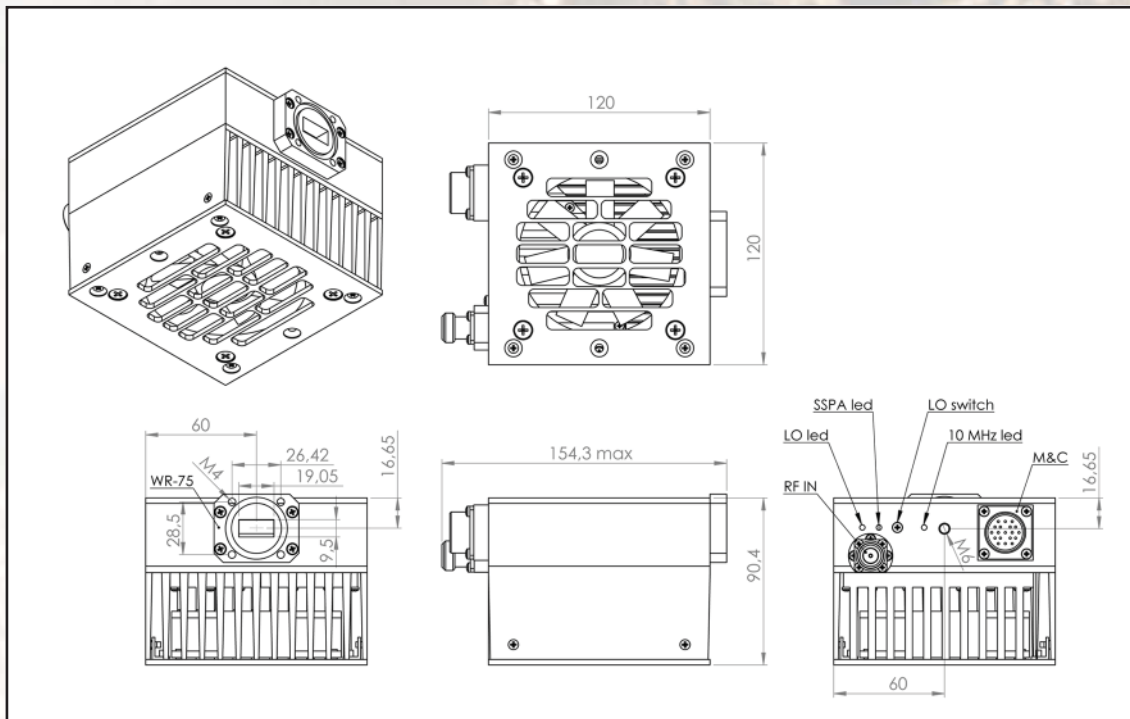
- ◆ Output frequency 13.75-14.50 GHz
- ◆ Double L.O. (switchable 12.80 & 13.05 GHz)
- ◆ Based on GaN technology which enables high efficiency, low power consumption and high reliability
- ◆ Incomparable low power consumption (197 W max.)
- ◆ Auto-ranging powering option 30 - 60 VDC
- ◆ Extreme P-Out GaN linearity (47 dBm)
- ◆ Digital temperature compensation
- ◆ Field-exchangeable (F/N) IF connector
- ◆ Internal auto-sensing and controllable 10MHz high stability reference (optional)
- ◆ Built-in redundancy option
- ◆ M&C - combined RS-232/485 and optional FSK
- ◆ Ethernet control (HTTP and SNMP ver. 2 and 3)
- ◆ RoHS compliant

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.

Mechanical Drawing





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:		via IF cable
frequency		10 MHz (sine-wave)
input power		-5 to +5 dBm @ input port
TX Gain variation		± 0.5 dB over 40 MHz
TX Gain stability over temperature range		± 1.8 dB over full band ± 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		Summary Alarm
Alarm LED	RED	OK
	GREEN	MUTE
	GREEN blinking	All OK standard L.O. 13.05 GHz
L.O.	GREEN	All OK extended L.O. 12.80 GHz
	GREEN blinking	External 10MHz reference
10MHz Reference LED	GREEN	Internal 10MHz reference
	GREEN blinking	No 10MHz reference detected
	RED	
Temperature range (ambient)		-40 deg C to +55 deg C
operating		-55 deg C to +85 deg C
storage		
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.