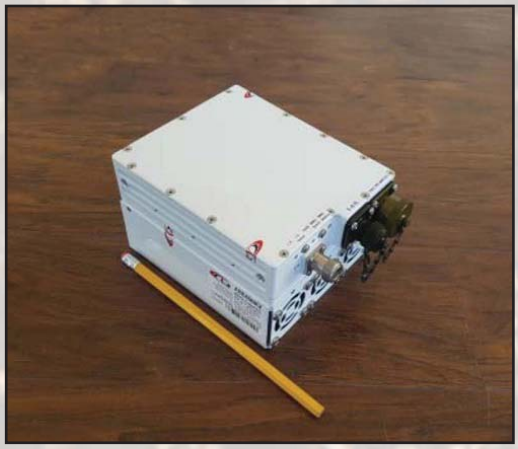
100W Ext. Ku-Band Block Up Converter

KEY FEATURES

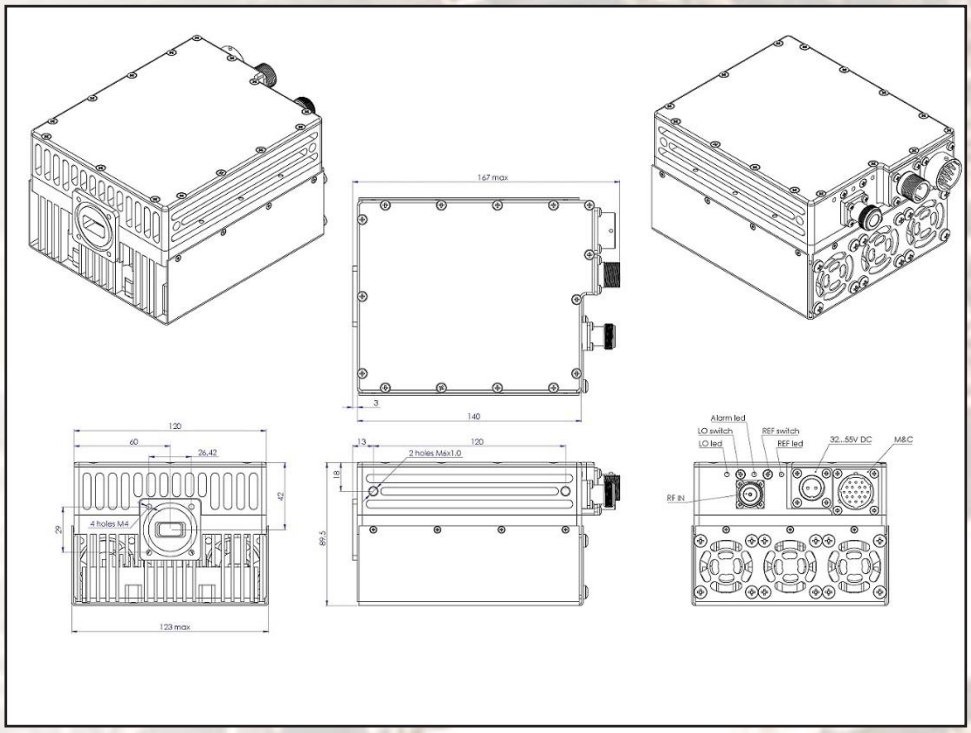
- Output frequency 13.75-14.50 GHz
- Double L.O. (switchable 12.80 & 13.05 GHz)
- Based on GaN technology which enables high efficiency, low power consumption and high reliability
- Incomparable low power consumption (529W max.)
- Auto-ranging powering option 36 - 60 VDC
- Digital temperature compensation
- Field-exchangeable (F/N) IF connector
- Internal auto-sensing and controllable 10MHz high stability reference (optional)
- Advanced M&C - combined RS-232/485 / Ethernet (HTTP and SNMP ver. 2 & 3) / FSK (optional)
- Special Feature: Chinese GUI (optional)

ABC100NKX / ABC100NKXF



This smallest and lightest 100W 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.

Mechanical Drawing



GaN Based Product

100W Ext. Ku-Band Block Up Converter

TECHNICAL SPECIFICATIONS		
RF frequency		13.75 to 14.50 GHz
Dual local oscillator		12.80 GHz and 13.05 GHz
IF frequency		950 to 1,700 MHz
Output power		100W (+50 dBm min.) 51.3W (+47.1 dBm min.) P-Linear
IF connector		N-type or F-type (field-exchangeable)
Power supply auto-ranging		36 ~ 60 VDC via MS connector, 529W max.
Output interface		WR-75 G
Gain		72 dB typ.
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		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. 13.05 GHz
	GREEN blinking	All OK extended L.O. 12.80 GHz
10MHz	**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
IP rating		IP67
Dimensions & housing		140 (L) x 120 (W) x 89.5 (H) mm 5.51" (L) x 4.72" (W) x 3.52" (H)
Weight		2.2 kg (4.85 lbs) max.

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