



30W Fan-less Ext. Ku-Band Block Up Converter

KEY FEATURES

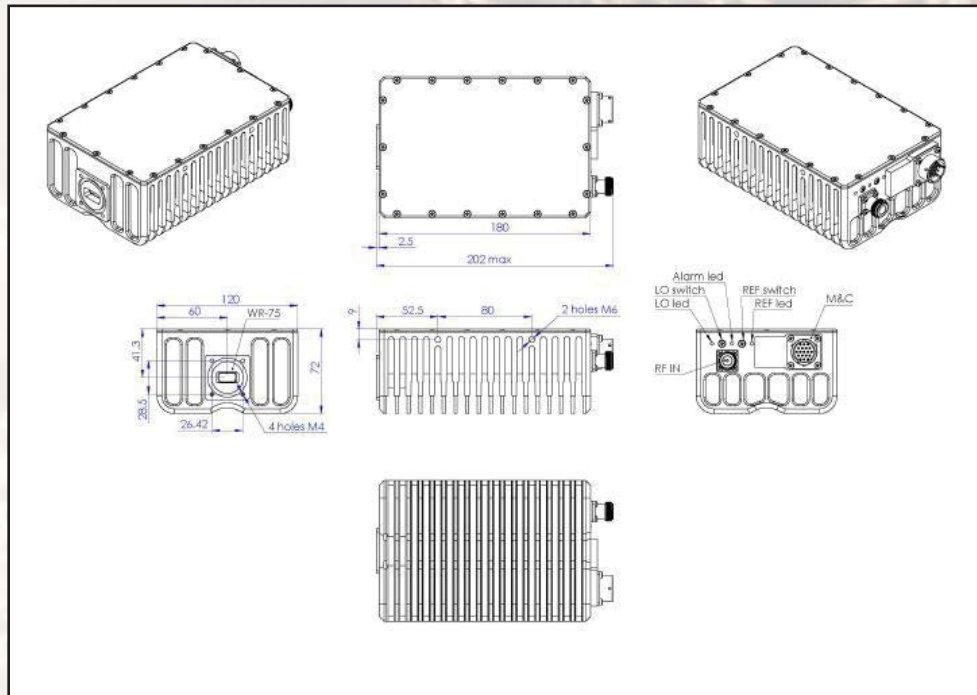
- ◆ Output frequency 13.75-14.50 GHz
- ◆ Built-in redundancy option
- ◆ Based on GaN technology which enables high efficiency, low power consumption and high reliability
- ◆ Incomparable low power consumption (117W max.)
- ◆ Auto-ranging powering option 15 - 60 VDC
- ◆ Smallest, lightest and fan-less
- ◆ Internal 10MHz high stability reference (optional)
- ◆ Digital temperature compensation
- ◆ Field-exchangeable (F/N) IF connector
- ◆ M&C - combined RS-232/485 and optional FSK
- ◆ Amplifier, L.O. and 10MHz Reference Status LEDs
- ◆ RoHS compliant

ABEN30KX/ ABEN30KXF



This smallest and lightest fanless 30W 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. It is powered either with 24/48 VDC and consumes less than 117W.

Mechanical Drawing





30W Fan-less 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		30W (+45 dBm min.) 15.7W P-Linear (41.9 dBm min.)
IF connector		N-type or F-type (field-exchangeable)
Power supply auto-ranging		+15 ~ +60 VDC via IF cable, 117W max.
Output interface		WR-75 G
Gain		68 dB typ.
IMD3 (two tones)		-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		-53 dBc/Hz max. @ 10 Hz
(Exceeds Intelsat's standard IESS308/309)		-63 dBc/Hz max. @ 100 Hz
		-73 dBc/Hz max. @ 1 KHz
		-83 dBc/Hz max. @ 10 KHz
		-93 dBc/Hz max. @ 100 KHz
		-113 dBc/Hz max. @ 1 MHz
Noise power density	Transmit	-66 dBm/Hz (max.)
	Receive	-157 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 and RS-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		180 (L) x 120 (W) x 72 (H) mm 7.08" (L) x 4.72" (W) x 2.83" (H)
Weight		2.8 kg (6.17 lbs) max