



16W Fan-less Ext. Ku-Band Block Up Converter

KEY FEATURES

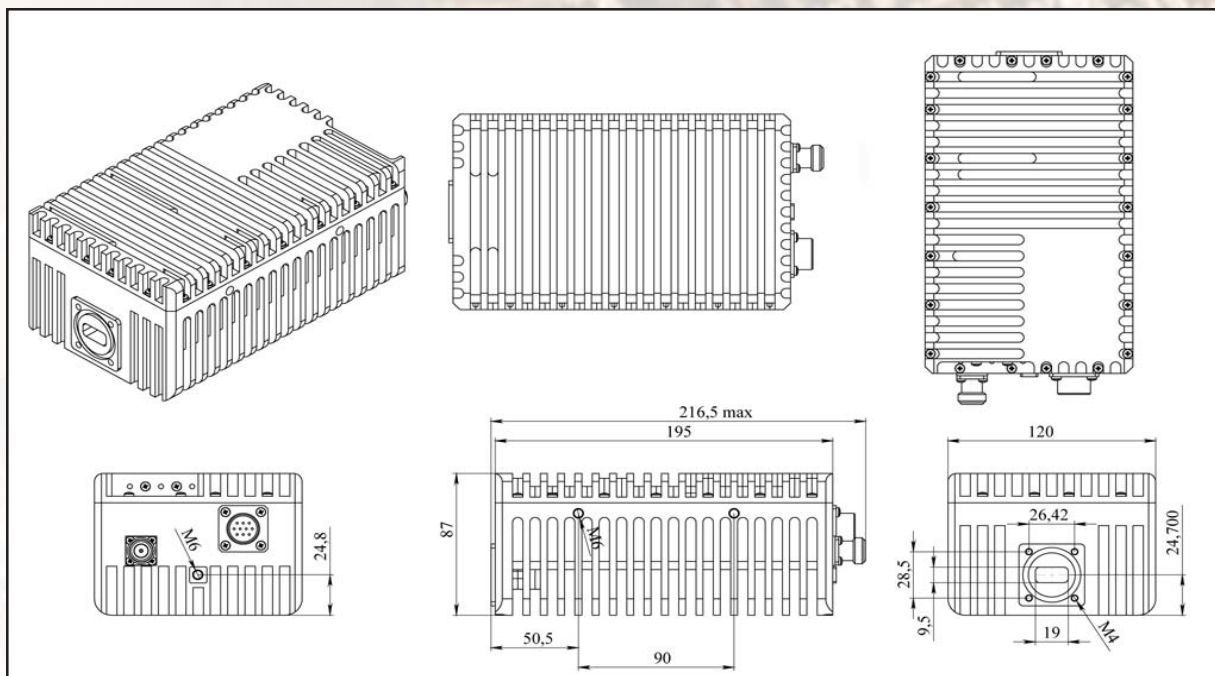
- ◆ Output frequency 13.75-14.50 GHz
- ◆ Based on GaN technology which enables high efficiency, low energy consumption and high reliability
- ◆ Smallest , lightest and fan-less
- ◆ Auto-ranging power 15-60 VDC
- ◆ Incomparable low power consumption (92W max)
- ◆ Digital temperature compensation
- ◆ Amplifier, L.O. and 10MHz Reference Status LEDs
- ◆ Field-exchangeable (F/N) IF connector
- ◆ M&C - combined RS-232/485/FSK (optional), Ethernet (optional)
- ◆ Internal 10MHz high stability 10^{-8} reference (optional)
- ◆ Three-year warranty
- ◆ RoHS compliant

ABEN16KX / ABEN16KXF



This smallest and lightest fanless 16W 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 92W.

Mechanical Drawing





16W Fan-less Ext. Ku-Band Block Up Converter

TECHNICAL SPECIFICATIONS

RF frequency	13.75 to 14.50 GHz	
Local oscillator	12.80 GHz and 13.05 GHz	
IF frequency	950 to 1,700 MHz	
Output power	16W (+42 dBm min.) 8W P-linear (39 dBm min.)	
IF connector	N-type or F-type (field-exchangeable)	
Power supply - auto-ranging	+15~+60 VDC via IF cable, 92 W max	
Internal 10MHz high stability reference	10 ⁻⁸	
Output interface	WR-75 G	
Gain	68 dB typ.	
IMD3 (two tones)	-26 dBc max. 2 signal 5MHz 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	
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	
Requirement for external reference frequency input power	via IF cable 10 MHz (sine-wave) -5 to +5 dBm @ input port	
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	-157dBm/Hz (max)
Noise figure	20 dB max	
Input V.S.W.R.	2 : 1 max	
Output V.S.W.R.	2 : 1 max	
Mute	Shut off the BUC in case of L.O. unlocked	
M&C	RS-232 and RS-485, Ethernet	
FSK	Multiplexed on TX IFL, compatible with Comtech and Paradigm	
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
10MHz	GREEN	External 10MHz reference
	GREEN blinking	Internal 10MHz reference
	RED	No 10MHz reference detected
Temperature range (ambient) operating storage	-40 deg C to +55 deg C -55 deg C to +85 deg C	
Vibration and shock	Complies with MIL-STD-810E	
Dimensions & housing	216.5 (L) x 120 (W) x 87 (H) mm 7.67" (L) x 4.72" (W) x 3.93" (H)	
Weight	2.8 kg (6.17 lbs) max	