



# 16W Fan-less Ext. Low Ku-Band BUC

## KEY FEATURES

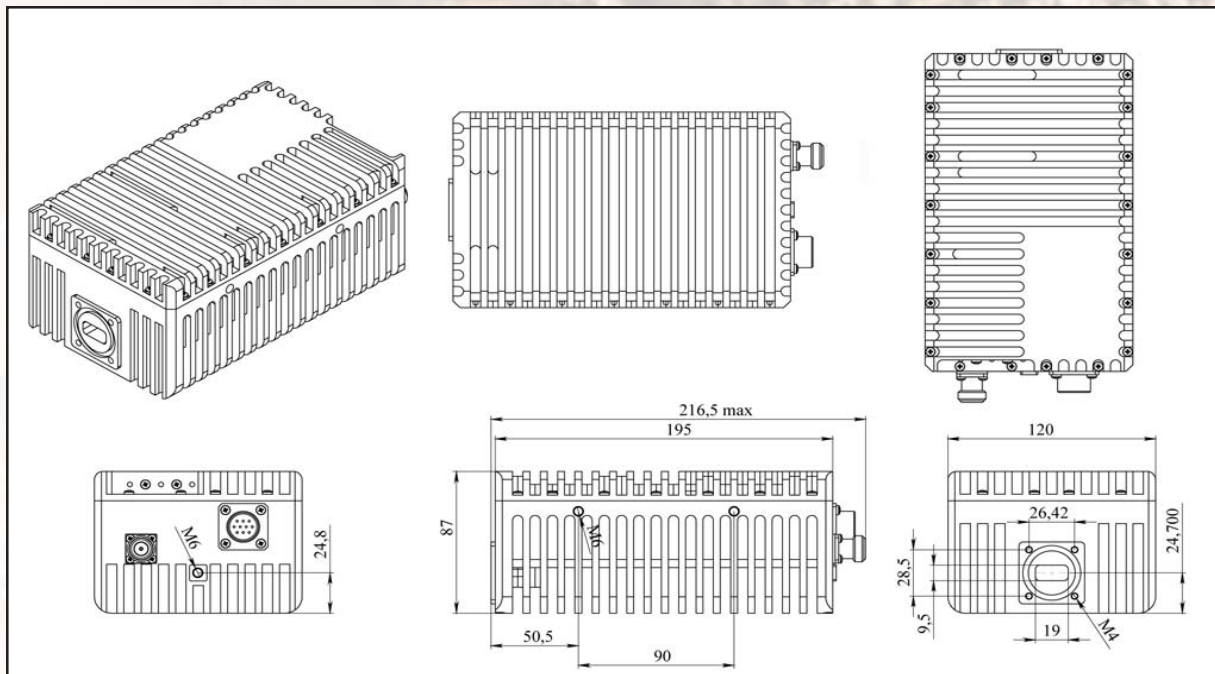
- ◆ Output frequency 12.75-13.50 GHz
- ◆ Based on GaN technology which enables high efficiency, low energy consumption and high reliability
- ◆ Smallest , lightest and fan-less
- ◆ Auto-ranging power 15-60 VDC
- ◆ Incomparable low power consumption (92W max)
- ◆ Digital temperature compensation
- ◆ Amplifier, 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

## ABEN16KXL / ABEN16KXLF



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. Low Ku-Band BUC

## TECHNICAL SPECIFICATIONS

<b>RF frequency</b>	12.75 to 13.50 GHz	
<b>Local oscillator</b>	11.80 GHz and 12.05 GHz	
<b>IF frequency</b>	950 to 1,700 MHz	
<b>Output power</b>	16W (+42 dBm min) 8W P-Linear (39 dBm min.)	
<b>IF connector</b>	N-type or F-type (field-exchangeable)	
<b>Power supply - auto-ranging</b>	+15~+60 VDC via IF cable, 92 W max	
<b>Internal 10MHz high stability reference</b>	10 <sup>-8</sup>	
<b>Output interface</b>	WR-75 G	
<b>Gain</b>	68 dB typ.	
<b>IMD3 (two tones)</b>	-26 dBc max. 2 signal 5MHz apart at P-LINEAR	
<b>L.O. leakage</b>	-45 dBm max	
<b>Spurious</b>	-53 dBc max	
<b>Spectral regrowth</b> (QPSK at 1.5x and OQPSK at 1.0x symbol rate offset with 2dB back-off from rated output power)	-30 dBc	
<b>TX Gain variation</b>	± 0.5 dB over 40 MHz ± 1.8 dB over full band	
<b>TX Gain stability over temperature range</b>	± 1.5 dB typ., ± 1.8 dB max	
<b>Requirement for external reference</b> frequency input power	via IF cable 10 MHz (sine-wave) -5 to +5 dBm @ input port	
<b>Phase noise</b>  (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	
<b>Noise power density</b>	<b>Transmit</b>	-66 dBm/Hz (max)
	<b>Receive</b>	-157dBm/Hz (max)
<b>Noise figure</b>	20 dB max	
<b>Input V.S.W.R.</b>	2 : 1 max	
<b>Output V.S.W.R.</b>	2 : 1 max	
<b>Mute</b>	Shut off the BUC in case of L.O. unlocked	
<b>M&amp;C</b>	RS-232 and RS-485, Ethernet	
<b>FSK</b>	Multiplexed on TX IFL, compatible with Comtech and Paradigm	
<b>Status LED</b>		
<b>Amplifier</b>	<b>RED</b>	Summary alarm
	<b>GREEN</b>	All OK
<b>L.O.</b>	<b>YELLOW</b>	All OK standard L.O. 12.05 GHz
	<b>YELLOW blinking</b>	All OK extended L.O. 11.80 GHz
<b>10 MHz</b>	<b>GREEN</b>	External 10MHz reference
	<b>GREEN blinking</b>	Internal 10MHz reference
	<b>RED</b>	No 10MHz reference detected
<b>Temperature range (ambient)</b> operating storage	-40 deg C to +55 deg C -55 deg C to +85 deg C	
<b>Vibration and shock</b>	Complies with MIL-STD-810E	
<b>Dimensions &amp; housing</b>	216.5 (L) x 120 (W) x 87 (H) mm 7.67" (L) x 4.72" (W) x 3.93" (H)	
<b>Weight</b>	2.8 kg (6.17 lbs) max	