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

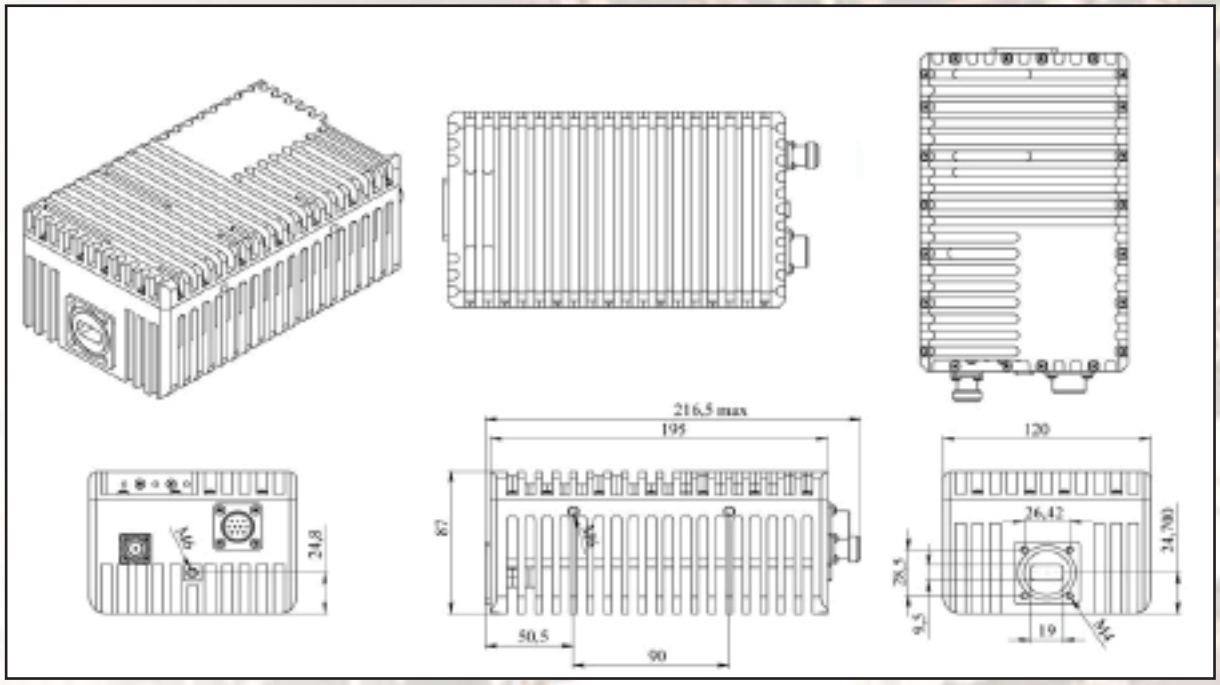
KEY FEATURES

- 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 (92W 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

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	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	16W (+42 dBm min.) 8.2W P-Linear (39.1 dBm min.)
IF connector	N-type or F-type (field-exchangeable)
Power supply auto-ranging	+15 ~ +60 VDC via IF cable, 92W typ.
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: frequency input power	**via IF cable** 10 MHz (sine-wave) -5 to +5 dBm @ input port
TX Gain variation **TX Gain stability over temperature range**	**±0**.5 dB over 40 MHz **±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** **Receive**	-66 dBm/Hz (max) -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** **GREEN** **L.O.** **YELLOW** **YELLOW blinking** **10MHz** **GREEN** **GREEN blinking** **RED**	 Summary alarm All OK All OK standard L.O. 13.05 GHz All OK extended L.O. 12.80 GHz External 10MHz reference Internal 10MHz reference 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