25W Fan-less Ext. Ku-Band Block Up Converter

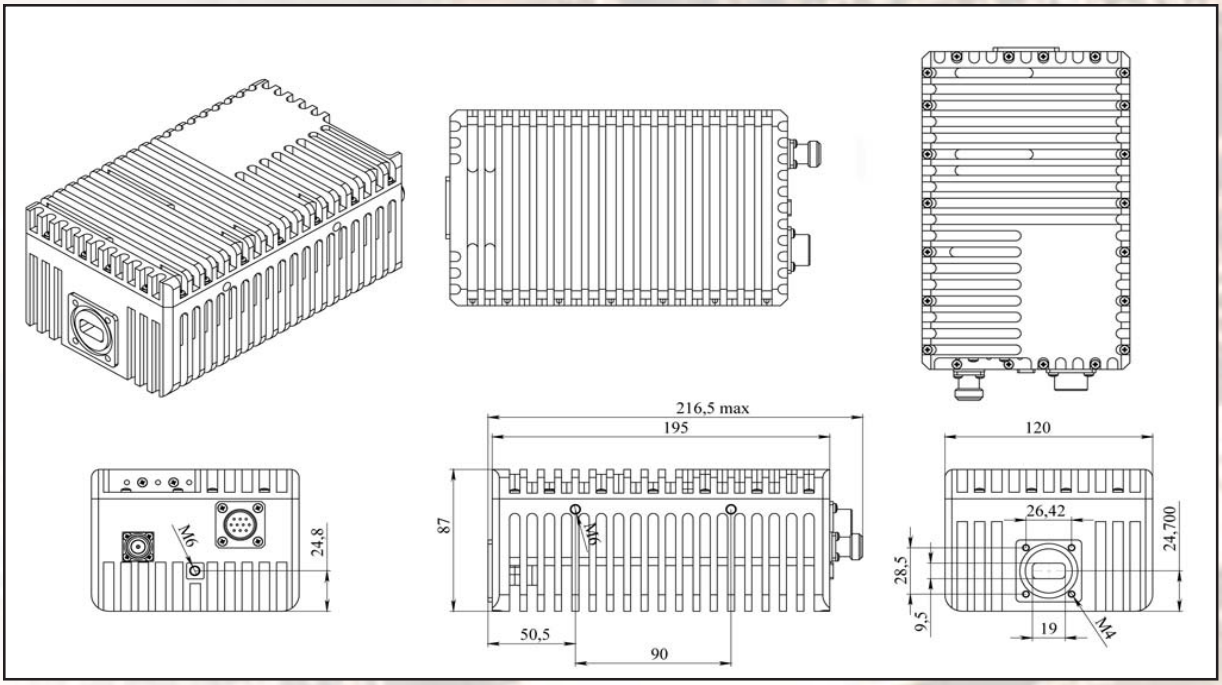
KEY FEATURES

- 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 (114W max)
- Digital temperature compensation
- L.O. lock and amplifier LEDs
- Field-exchangeable (F/N) IF connector
- M&C - combined RS-232/485/FSK (optional), Ethernet (otional)
- Internal 10MHz high stability 10^{-8} reference (optional)
- Three-year warranty
- RoHS compliant

ABEN25KX / ABEN25KXF

This smallest and lightest fan-less 25W 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 114W.

Mechanical Drawing



25W 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	25W (43.5 dBm min., 44dBm typ.) 13W P-linear (41 dBm min.)
IF connector	N-type or F-type (field-exchangeable)
Power supply - auto-ranging	+15~+60 VDC via IF cable, 114 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 **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
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)	-53 dBc/Hz max. @ 10 Hz -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** **Receive**	-66 dBm/Hz (max) -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 **RED** **GREEN** **YELLOW** **YELLOW blinking**	 Summary alarm All OK All OK standard L.O 13.05 GHz All OK extended L.O. 12.80 GHz
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