8W Low Ku-Band Block Up Converter

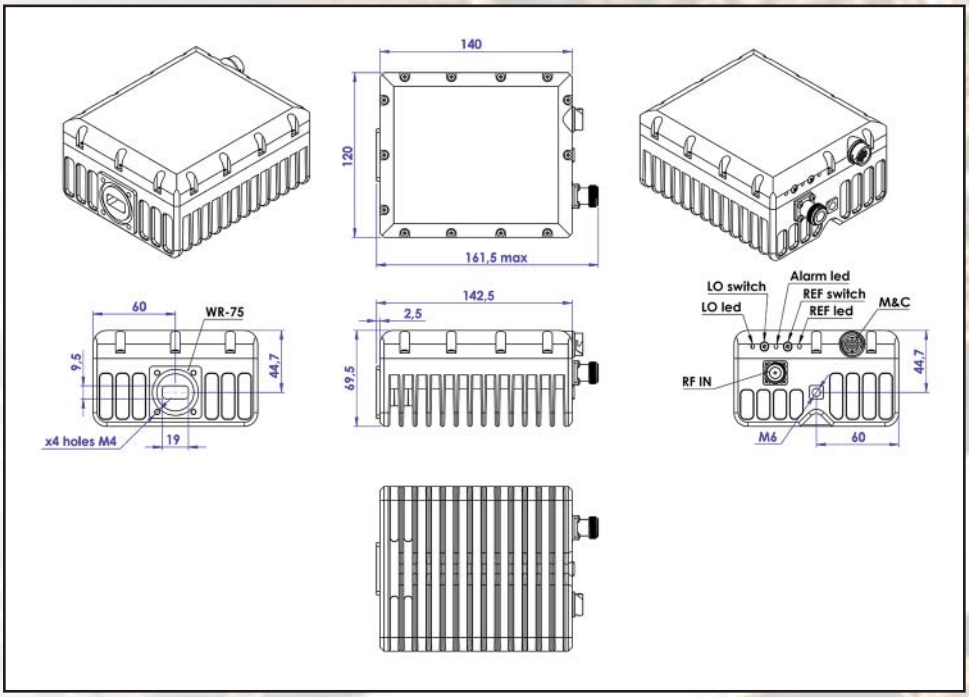
KEY FEATURES

- Output frequency 12.75 - 13.50 GHz
- Based on GaN technology which enables high efficiency, low power consumption and high reliability.
- Double L.O. (switchable 11.80 & 12.05 GHz)
- Incomparable low power consumption (47W max.)
- Advanced M&C interface - combined RS-232/485, Ethernet (HTTP and SNMP ver. 3) and optional FSK
- Auto-ranging 15-60 VDC powering option
- Digital temperature compensation
- Power and lock status LED
- Built-in redundancy option
- Field-exchangeable (F/N) IF connector
- Internal 10MHz high stability reference (optional)
- RoHS compliant

ABE8KXHLM / ABE8KXHLMF

This smallest and lightest 8W L-To Low Ku-Band Block Up Converter is based on GaN technology. Double L.O. and field-exchangeable connector make unit universal for any Low Ku-Band application. Incomparable low power consumption allowes the BUC to be powered by iDirect and similar modems. Internal 10MHz reference option enables using the BUC with the modems without 10MHz reference.

Mechanical Drawing



GaN Based Product

8W Low Ku-Band Block Up Converter

TECHNICAL SPECIFICATIONS	
RF frequency	12.75 - 13.50 GHz
Dual local oscillator	11.80 and 12.05 GHz
IF frequency	950 to 1,700 MHz
Output power	8W (+39 dBm min.)
IF connector	N-type or F-type (field-exchangeable)
Power supply : auto-ranging via IF connector	+15 VDC ~ +60 VDC, 47W max.
Output interface	WR 75 G
Gain	62 dB nominal
IMD3 (two tones)	-26 dBc max. 2 signal 5 MHz apart at P-LINEAR
L.O. leakage	-45 dBm max
Spurious	-50 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)	-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) -157 dBm/Hz (max)
FSK	Multiplexed on TX IFL, compatible with Comtech and Paradigm
M&C Interface	RS-232, RS-485 and Ethernet (HTTP and SNMP ver. 3)
Noise figure	15 dB max.
Input V.S.W.R.	1.5 : 1 max.
Output V.S.W.R.	1.5 : 1 max.
Mute	Shut off the HPA if L.O. unlocked
Status LED **Amplifier** **RED** **GREEN** **L.O.** **GREEN** **GREEN blinking** **10MHz** **GREEN** **GREEN blinking** **RED**	 Summary alarm All OK All OK standard L.O. 12.05 GHz All OK extended L.O. 11.80 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
Humidity	100%
IP rating	IP67
Dimensions & housing	140 (L) x 120 (W) x 69.5 (H) mm 5.51" (L) x 4.72" (W) x 2.73" (H)
Weight	1.2 kg (2.6 lbs) max.

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