

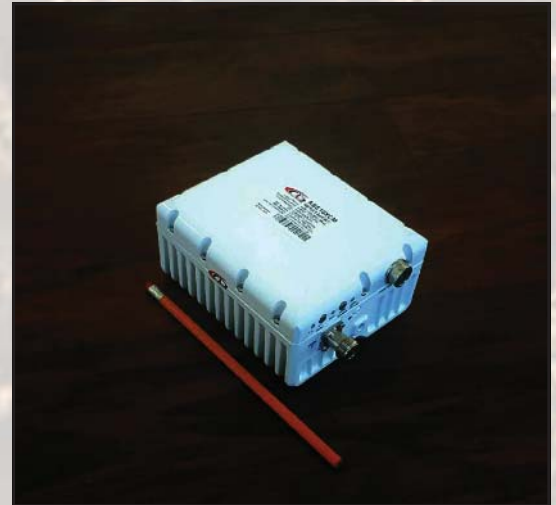


10W Ext. Ku-Band Block Up Converter

KEY FEATURES

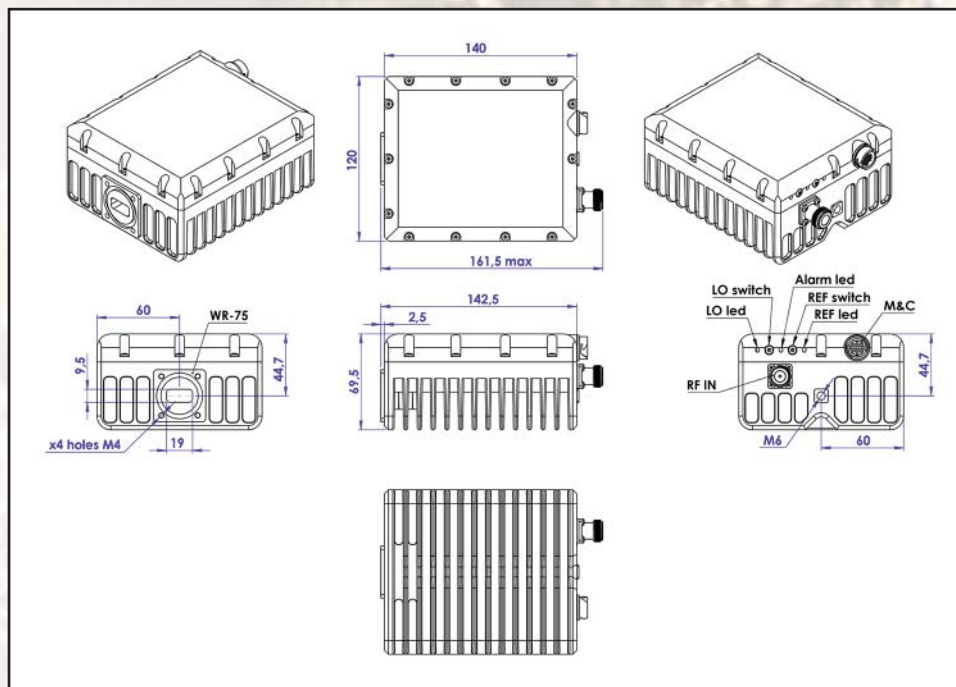
- ◆ Output frequency 13.75 - 14.50 GHz
- ◆ Based on GaN technology which enables high efficiency, low power consumption and high reliability.
- ◆ Double L.O. (switchable 12.80 & 13.05 GHz)
- ◆ Incomparable low power consumption (49W max)
- ◆ Advanced M&C interface - combined RS-232/485, Ethernet (HTTP 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

ABE10KXHM / ABE10KXHMF



This smallest and lightest 10W L-To Ku-Band Block Up Converter is based on GaN technology. Double L.O. and field-exchangeable connector make unit universal for any Ku-Band application. Incomparable low power consumption allows 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





10W Ext. Ku-Band Block Up Converter

TECHNICAL SPECIFICATIONS

RF frequency		13.75 - 14.50 GHz
Dual local oscillator		12.80 and 13.05 GHz
IF frequency		950 to 1,700 MHz
Output power		10W (+40 dBm min.)
IF connector		N-type or F-type (field-exchangeable)
Power supply : auto-ranging via IF connector		+15 VDC ~ +60 VDC, 49W 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		± 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.
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		-66 dBm/Hz (max.)
Transmit Receive		-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
L.O.		GREEN
10MHz		GREEN blinking
		GREEN
		GREEN blinking
		RED
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
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.