

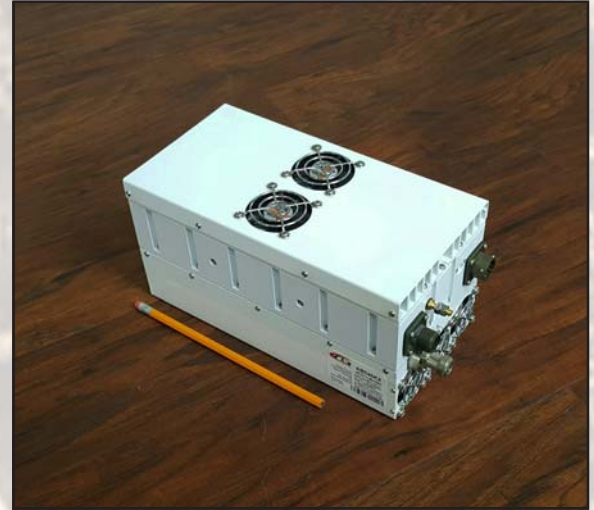


40W Ext. Ku-Band Block Up Converter

KEY FEATURES

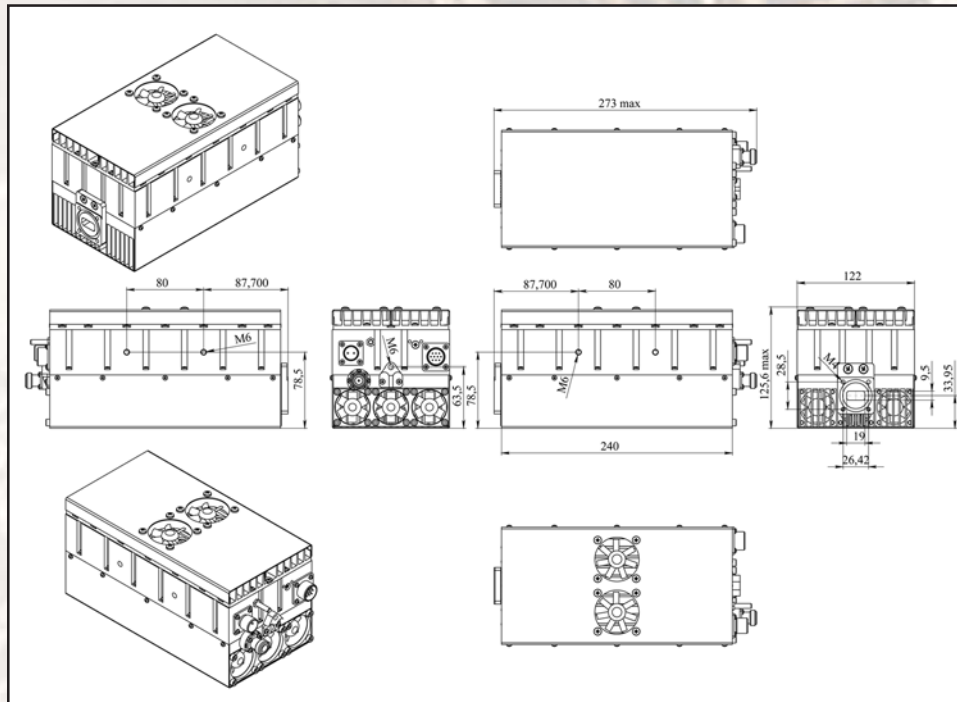
- ◆ Output frequency 13.75-14.50 GHz
- ◆ Based on GaN technology which enables high efficiency, low energy consumption and high reliability
- ◆ Double - L.O. (electronically and manually switchable 12.80 and 13.05 GHz)
- ◆ Extreme P-Out GaN linearity
- ◆ Auto-ranging power 36-58 VDC or 80-240 power options
- ◆ Incomparable low power consumption (255W 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 (optional)
- ◆ Internal 10MHz high stability 10^{-8} reference (optional)
- ◆ Ethernet control (optional)
- ◆ Three-year warranty
- ◆ RoHS compliant

ABD40KX / ABD40KXF ABC40KX / ABC40KXF



This smallest and lightest 40W L-To Ku-Band Block Up Converter is based on GaN technology. Incomparable low power consumption, double L.O., Field-Exchangeable connector and auto-ranging 36 - 58 VDC, or 80-240 VAC powering features make this unit universal for any Ku-Band application. M&C (FSK) capability enables troubleshooting, monitoring and controlling the BUC. User can choose internal 10MHz high stability reference if the corresponding modulator does not provide it.

Mechanical Drawing





40W Ext. Ku-Band Block Up Converter

TECHNICAL SPECIFICATIONS		
RF frequency	L.O. 13.05 GHz L.O. 12.80 GHz	14.00 to 14.50 GHz 13.75 to 14.50 GHz
Dual local oscillator- electronically and manually switchable		13.05 GHz and 12.80 GHz
IF frequency		950 to 1,700 MHz
Output power	Min. Linear	40W (+46 dBm min.) 20W (+43 dBm typ.)
IF connector		N-type or F-type (field-exchangeable)
Power supply ABC40KX- auto-ranging ABD40KX- auto-ranging		+36~+58 VDC via IF cable, 253 W max 80~240 VAC via MS connector, 255W max
Internal 10MHz high stability reference		10 ⁻⁸
Spurious		-50 dBc max
L.O. leakage		-45 dBm
Gain		68 dB typ.
IMD3 (two tones)		-26 dBc typ. 2 signal 5MHz apart at P-LINEAR
Spectral regrowth (QPSK at 1.5x and OQPSK at 1.0x symbol rate offset with 2dB back-off from rated output power)		-30dBc
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.
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)		-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.		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		240 (L) x 122 (W) x 125.6 (H) mm 9.6" (L) x 4.8" (W) x 5" (H)
Weight		3.9 kg (8.6 lbs) max