



40W Ext. Ku-Band Block Up Converter

KEY FEATURES

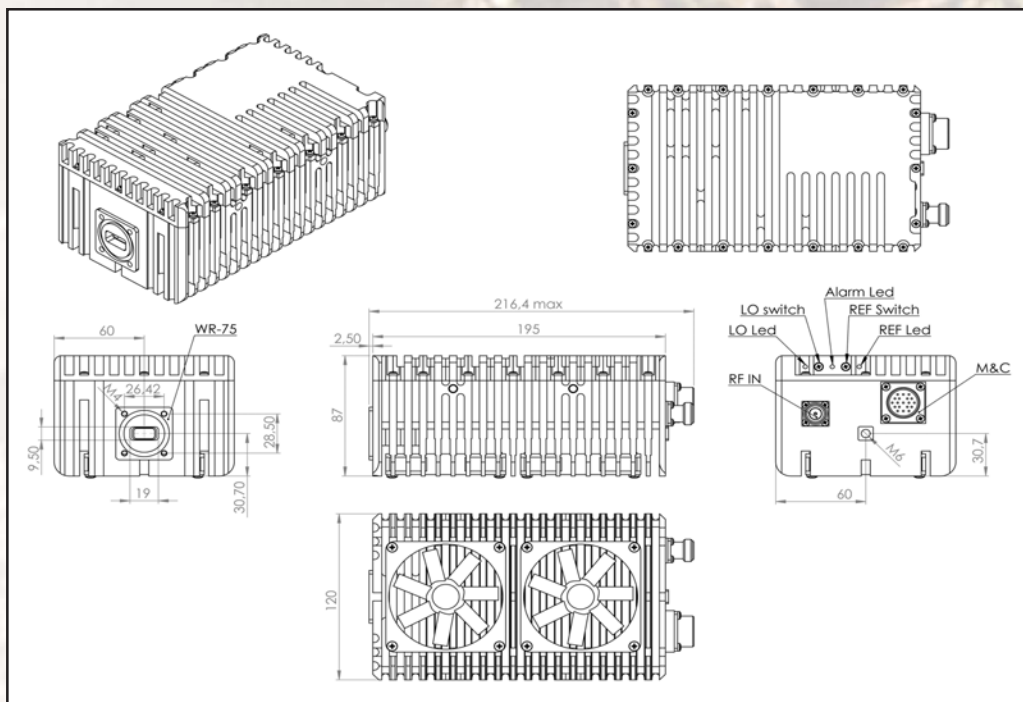
- ◆ Output frequency 13.75-14.50 GHz
- ◆ Based on GaN technology which enables high efficiency, low energy consumption and high reliability
- ◆ Smallest and lightest
- ◆ Auto-ranging power 30 - 60 VDC
- ◆ Incomparable low power consumption (195W)
- ◆ Digital temperature compensation
- ◆ Amplifier, L.O. and 10MHz Reference Status 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)
- ◆ Three-year warranty
- ◆ RoHS compliant

ABCN40KX / ABCN40KXF



This smallest and lightest 40W 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. DC powered through the MS Connector and consumes less than 195W.

Mechanical Drawing





40W 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	40W (+46 dBm min.) 20W P-linear (43 dBm min.)
IF connector	N-type or F-type (field-exchangeable)
Power supply - auto-ranging	+30~+60 VDC via MS Connector, 195 W max
Internal 10MHz high stability reference	10 ⁻⁸
Output interface	WR-75 G
Gain	72 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	± 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 -66 dBm/Hz (max)
	Receive -157dBm/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
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	
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