



## 40W Ext. Ku-Band Block Up Converter

### KEY FEATURES

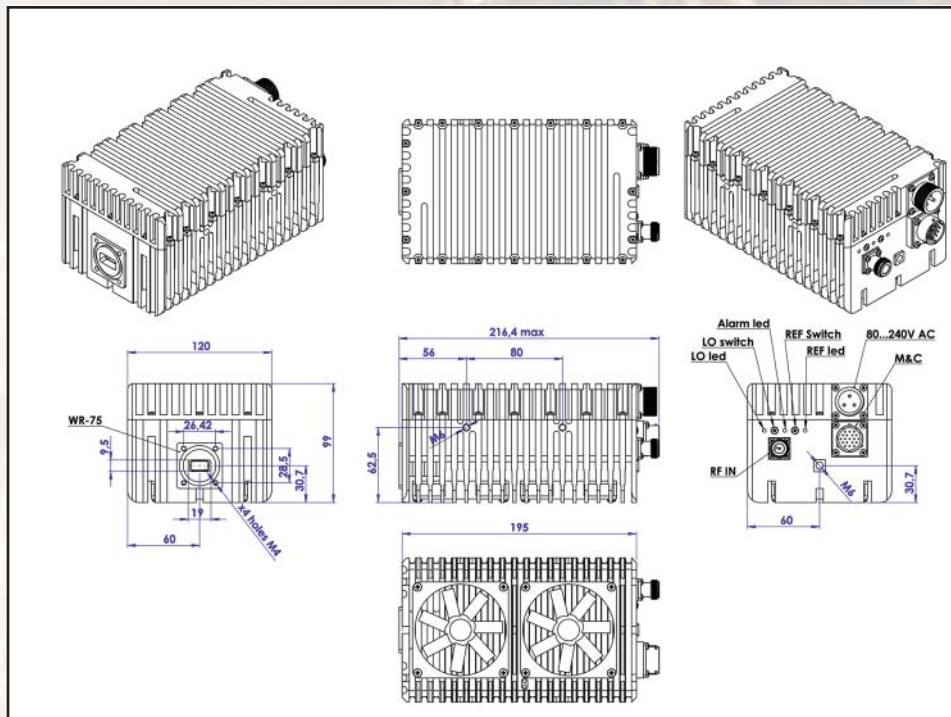
- ◆ Output frequency 13.75-14.50 GHz
- ◆ Double- L.O. (switchable 12.80 & 13.05 GHz)
- ◆ Based on GaN technology which enables high efficiency, low power consumption and high reliability
- ◆ Incomparable low power consumption (199W max.)
- ◆ Auto-ranging powering option 80 - 240 VAC
- ◆ Digital temperature compensation
- ◆ Field-exchangeable (F/N) IF connector
- ◆ Amplifier, L.O. and 10 MHz Reference Status LEDs
- ◆ M&C - combined RS-232/485 and optional FSK
- ◆ RoHS compliant
- ◆ Three year warranty

### ABDN40KX / ABDN40KXF



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, auto-sensing and controllable internal 10 MHz reference make this unit universal for any Ku-Band application. AC Built-in power and consumes less than 199W.

### Mechanical Drawing





## 40W Ext. Ku-Band Block Up Converter

TECHNICAL SPECIFICATIONS		
<b>RF frequency</b>		14.00 to 14.50 GHz 13.75 to 14.50 GHz
<b>Dual local oscillator</b>		13.05 GHz and 12.80 GHz
<b>IF frequency</b>		950 to 1,700 MHz
<b>Output power</b>		40W (+46 dBm min.) 20W (+43 dBm min.) P-Linear
<b>IF connector</b>		N-type or F-type (field-exchangeable)
<b>Power supply auto-ranging</b>		80 ~ 240 VAC via MS connector, 199W max.
<b>Output interface</b>		WR-75 G
<b>Gain</b>		70 dB typ.
<b>IMD3 (two tones)</b>		-26 dBc max. 2 signal 5 MHz apart at P-LINEAR
<b>L.O. leakage</b>		-45 dBm max
<b>Spurious</b>		-50 dBc max
<b>Spectral regrowth</b> (QPSK at 1.5x and OQPSK at 1.0x symbol rate offset with 2dB back-off from rated output power)		-30 dBc
<b>Requirement for external reference:</b> frequency input power		<b>via IF cable</b> 10 MHz (sine-wave) -5 to +5 dBm @ input port
<b>TX Gain variation</b>		$\pm 0.5$ dB over 40 MHz $\pm 1.8$ dB over full band
<b>TX Gain stability over temperature range</b>		$\pm 1.5$ dB typ., $\pm 1.8$ dB max.
<b>Phase noise</b>  (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
<b>Noise power density</b>	<b>Transmit</b> <b>Receive</b>	-80 dBm/Hz (max) -125 dBm/Hz (max)
<b>Noise figure</b>		15 dB max
<b>Input V.S.W.R.</b>		2 : 1 max
<b>Output V.S.W.R.</b>		2 : 1 max.
<b>M&amp;C</b>		RS-232 and RS-485, Ethernet (HTTP and SNMP), FSK
<b>Mute</b>		Shut off the HPA if L.O. unlocked
<b>Status LED</b>		
<b>Amplifier</b>	<b>RED</b>	Summary alarm
	<b>GREEN</b>	All OK
<b>L.O.</b>	<b>YELLOW</b>	All OK standard L.O. 13.05 GHz
	<b>YELLOW blinking</b>	All OK extended L.O. 12.80 GHz
<b>10MHz</b>	<b>GREEN</b>	External 10MHz reference
	<b>GREEN blinking</b>	Internal 10MHz reference
	<b>RED</b>	No 10MHz reference detected
<b>Temperature range (ambient)</b>		
operating		-40 deg C to +55 deg C
storage		-55 deg C to +85 deg C
<b>Vibration and shock</b>		Complies with MIL-STD-810E
<b>Dimensions &amp; housing</b>		195 (L) x 120 (W) x 99 (H) mm 7.8" (L) x 4.72" (W) x 3.9" (H)
<b>Weight</b>		2.8 kg (6.17 lbs) max