



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

### KEY FEATURES

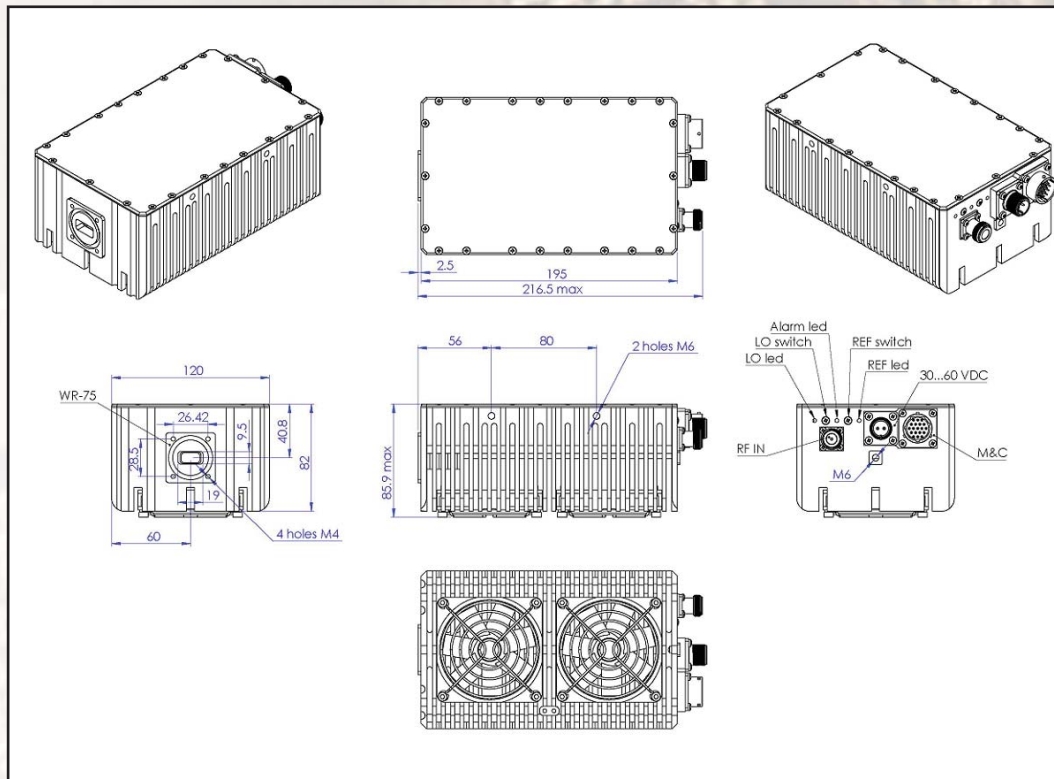
- ◆ Output frequency 13.75-14.50 GHz
- ◆ Double L.O. (switchable 12.80 & 13.05 GHz)
- ◆ Based on GaN technology which enables high efficiency, low power consumption and high reliability
- ◆ Incomparable low power consumption (195W max.)
- ◆ Auto-ranging powering option 30 - 60 VDC
- ◆ Digital temperature compensation
- ◆ Field-exchangeable (F/N) IF connector
- ◆ Internal auto-sensing and controllable 10MHz high stability reference (optional)
- ◆ M&C - combined RS-232/485/Ethernet (HTTP and SNMP) and optional FSK
- ◆ RoHS compliant

### ABCN40KX / ABCN40KXF



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. DC Built-in power and consumes less than 195W.

### Mechanical Drawing





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

| TECHNICAL SPECIFICATIONS  |  |
|---|--|
| <b>RF frequency</b>   | 14.0 to 14.50 GHz<br>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.)<br>20W P-linear (43 dBm min.)   |
| <b>IF connector</b>   | N-type or F-type (field-exchangeable)  |
| <b>Power supply auto-ranging</b>  | 30 ~ 60 VDC via MS connector, 195W max.  |
| <b>Output interface</b>   | WR-75 G  |
| <b>Gain</b>   | 72 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>   | -53 dBc max.   |
| <b>Spectral regrowth</b><br>(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><br>frequency<br>input power  | via IF cable<br>10 MHz (sine-wave)<br>-5 to +5 dBm @ input port  |
| <b>TX Gain variation</b>  | ± 0.5 dB over 40 MHz<br>± 1.8 dB over full band  |
| <b>TX Gain stability over temperature range</b>   | ± 1.5 dB typ., ± 1.8 dB max.   |
| <b>Phase noise</b><br><br>(Exceeds Intelsat's standard IESS308/309)   | -55 dBc/Hz max. @ 10 Hz<br>-65 dBc/Hz max. @ 100 Hz<br>-75 dBc/Hz max. @ 1 KHz<br>-85 dBc/Hz max. @ 10 KHz<br>-95 dBc/Hz max. @ 100 KHz<br>-115 dBc/Hz max. @ 1 MHz  |
| <b>Noise power density</b>  | -66 dBm/Hz (max.)  |
| <b>Noise figure</b>   | 20 dB max.   |
| <b>Input V.S.W.R.</b>   | 1.5 : 1 max.   |
| <b>Output V.S.W.R.</b>  | 1.5 : 1 max.   |
| <b>M&amp;C</b>  | RS-232 and RS-485, Ethernet (HTTP and SNMP), FSK   |
| <b>FSK</b>  | Multiplexed on TX IFL, compatible with Comtech and Paradigm  |
| <b>Mute</b>   | Shut off the HPA if L.O. unlocked  |
| <b>Status LED</b><br><b>Amplifier</b><br><br><b>L.O.</b><br><br><b>10MHz</b>  | <b>RED</b><br><b>GREEN</b><br><b>GREEN</b><br><b>GREEN blinking</b><br><b>GREEN</b><br><b>GREEN blinking</b><br><b>RED</b><br><br>Summary alarm<br>All OK<br>All OK standard L.O. 13.05 GHz<br>All OK extended L.O. 12.80 GHz<br>External 10MHz reference<br>Internal 10MHz reference<br>No 10MHz reference detected |
| <b>Temperature range (ambient)</b><br>operating<br>storage  | -40 deg C to +55 deg C<br>-55 deg C to +85 deg C   |
| <b>Vibration and shock</b>  | Complies with MIL-STD-810E   |
| <b>IP rating</b>  | IP67   |
| <b>Dimensions &amp; housing</b>   | 195 (L) x 120 (W) x 85.9 (H) mm<br>7.67" (L) x 4.72" (W) x 3.38" (H)   |
| <b>Weight</b>   | 2.8 kg (6.17 lbs) max.   |