



# 6W Ku-Band Block Up Converter

## KEY FEATURES

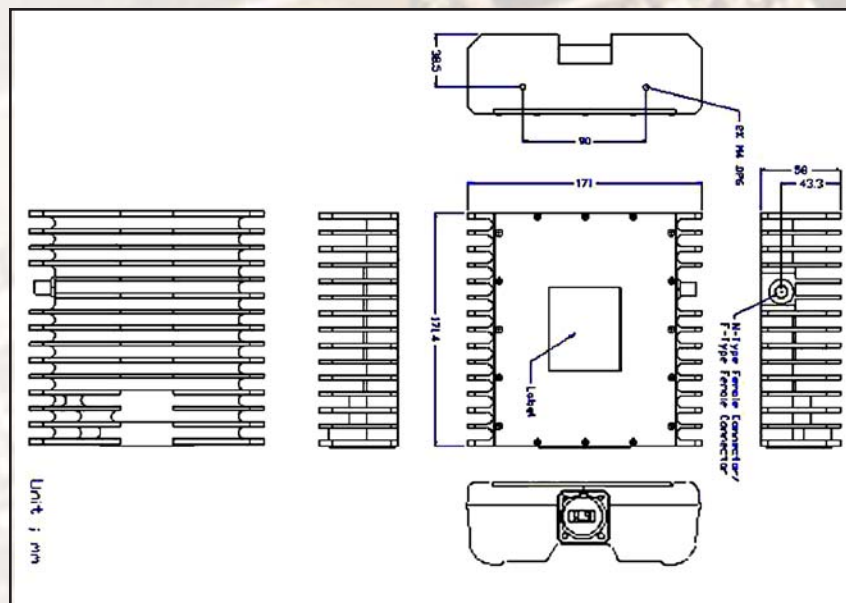
- ◆ Small package size and weight
- ◆ Feed horn mounting
- ◆ Powered through IF cable
- ◆ Low power consumption (<44W)
- ◆ High power efficiency (6W min @P1dB over temperature)
- ◆ Side connector
- ◆ 14.00-14.50 GHz / 13.75-14.25 GHz / 13.75-14.50 GHz options
- ◆ RoHS compliant
- ◆ Three-year warranty

**ABA6KUS / ABA6KUSF**  
**ABA6KUL / ABA6KULF**  
**ABA6KUX / ABA6KUXF**



This small and light weight 6W L-to Ku-Band Block Up Converter is designed to be mounted on the feed horn. High power efficiency resulting in low current (<2 amps) consumption allows user to pass DC supply voltage via IF cable. The unit is ideal for network and point to point, data distribution, portable and emergency applications.

## Mechanical Drawing





# 6W Ku-Band Block Up Converter

## TECHNICAL SPECIFICATIONS

|   |  |  |
|---|--|--|
| <b>RF frequency</b>                             | <b>ABA6KUS</b><br><b>ABA6KUL</b><br><b>ABA6KUX</b> | 14.00 to 14.50 GHz<br>13.75 to 14.25 GHz<br>13.75 to 14.50 GHz   |
| <b>Local oscillator</b>                         | <b>ABA6KUS</b><br><b>ABA6KUL</b><br><b>ABA6KUX</b> | 13.05 GHz<br>12.80 GHz<br>12.80 GHz  |
| <b>IF frequency</b>                             |  | 950 to 1,700 MHz   |
| <b>Output power @ P1dB min over temperature</b> |  | 6W (+38 dBm min.)  |
| <b>IF connector</b>                             |  | N-type or F-type   |
| <b>Power supply</b>                             |  | +15 VDC~+24 VDC via IF cable 44 W max  |
| <b>Output interface</b>                         |  | WR-75 Grooved  |
| <b>Gain</b>                                     |  | 60 dB nominal  |
| <b>IMD3</b>                                     |  | -30 dBc max  |
| <b>L.O. leakage</b>                             |  | -50 dBm max  |
| <b>Spurious</b>                                 |  | -50 dBc max  |
| <b>Gain variation</b>                           | <b>over 54 MHz</b><br><b>over 500 MHz</b>          | 0.7 dB p_p<br>2.0 dB p_p   |
| <b>Over operating temperature</b>               |  | 2.2 dB p_p @ fixed frequency   |
| <b>Requirement for external reference</b>       |  | via IF cable   |
|   | frequency  | 10 MHz (sine-wave)   |
|   | input power  | -5 to +5 dBm @ input port  |
| <b>Phase noise</b>                              |  | -53 dBc/Hz max. @ 10 Hz<br>-63 dBc/Hz max. @ 100 Hz<br>-73 dBc/Hz max. @ 1 kHz<br>-83 dBc/Hz max. @ 10 kHz<br>-93 dBc/Hz max. @ 100 kHz<br>-110 dBc/Hz max @ 1 MHz |
| <b>Noise figure</b>                             |  | 20 dB max  |
| <b>Input V.S.W.R.</b>                           |  | 2 : 1 max  |
| <b>Output V.S.W.R.</b>                          |  | 2 : 1 max.   |
| <b>Mute</b>                                     |  | Shut off the BUC<br>in case of L.O. unlocked   |
| <b>Input interface</b>                          | <b>ABA6KUS</b><br><b>ABA6KUSF</b>                  | 50 Ohm (N-type IF in)<br>75 Ohm (F-type IF in)   |
| <b>Temperature range (ambient)</b>              |  |  |
|   | operating  | -40 deg C to +55 deg C   |
|   | storage  | -40 deg C to +75 deg C   |
| <b>Dimensions &amp; housing</b>                 |  | 172.4 (L) x 171 (W) x 58 (H) mm<br>6.89" (L) x 6.84" (W) x 2.32" (H)   |
| <b>Weight</b>                                   |  | 1.9 kg (4.18 lbs) max  |