

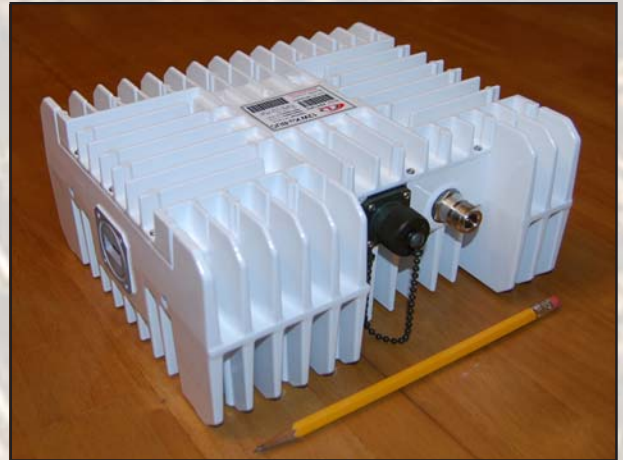


# 12W Ku-Band Block Up Converter

## KEY FEATURES

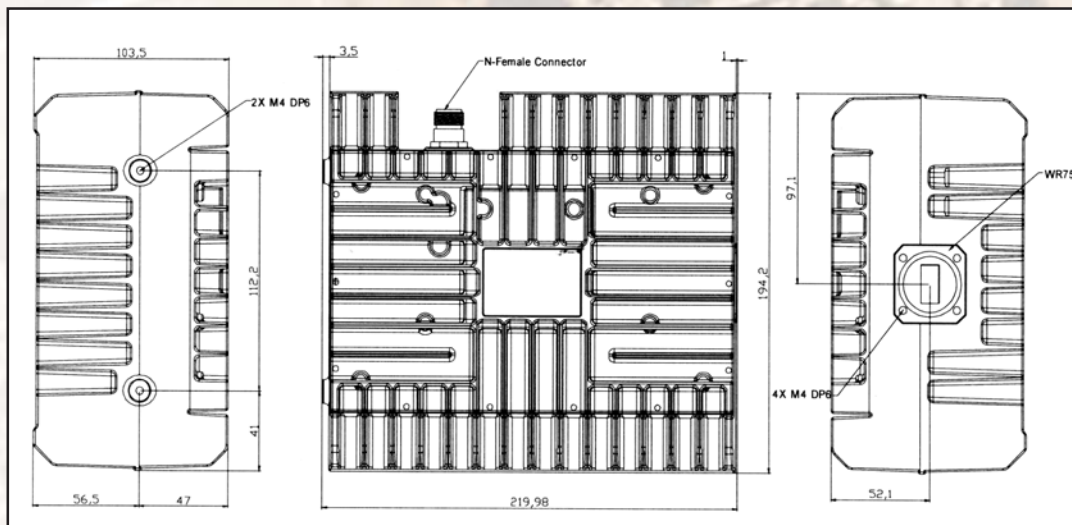
- ◆ Small package size and weight
- ◆ Feed horn mounting
- ◆ “No cooling fan” solution
- ◆ Input side connector
- ◆ Powered through IF cable
- ◆ Low power consumption (<82W)
- ◆ High power efficiency (12W min @P1dB over temperature)
- ◆ 24VDC / 48VDC / 48VDC via MS connector input power options
- ◆ RoHS compliant
- ◆ Three-year warranty
- ◆ 14.00-14.50 GHz / 13.75-14.25 / 13.75-14.50 GHz options

**ABA12KU / ABA12KUF**  
**ABA12KUL / ABA12KULF**  
**ABA12KUX / ABA12KUXF**



This small and light weight 12W L-To Ku-Band Block Up Converter is designed to be mounted on the feed horn. High power efficiency resulting in low current consumption allows user to pass DC supply voltage via IF cable or via external MS connector. The unit is ideal for network and point to point, data distribution, portable and emergency applications.

## Mechanical Drawing





# 12W Ku-Band Block Up Converter

| <b>TECHNICAL SPECIFICATIONS</b>           |  |  |
|---|--|--|
| <b>RF frequency</b>                       | <b>ABA12KU</b><br><b>ABA12KUL</b><br><b>ABA12KUX</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>ABA12KU</b><br><b>ABA12KUL</b><br><b>ABA12KUX</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 temp.</b> |  | 12W (+41 dBm min.)   |
| <b>IF connector</b>                       |  | N-type or F-type   |
| <b>Power supply</b>                       | <b>ABA12KU</b><br><b>ABB12KU</b><br><b>ABC12KU</b>   | +18 VDC~+24 VDC via IF cable 82 W max<br>+38 VDC~+60 VDC via IF cable 81 W max<br>+38 VDC~+60 VDC via MS conn. 81 W max  |
| <b>Output interface</b>                   |  | WR-75 Grooved  |
| <b>Linear gain</b>                        |  | 58 dB min., 72 dB max.   |
| <b>Gain variation</b>                     | <b>over 54 MHz</b><br><b>over 500 MHz</b>            | 1.5 dB p_p<br>2.5 dB p_p   |
| <b>Over operating temperature</b>         |  | 2.5 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 in case of L.O. unlocked  |
| <b>Input interface</b>                    | <b>ABA12KU</b><br><b>ABA12KUF</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>           |  | 212 (L) x 192 (W) x 102 (H) mm<br>8.4" (L) x 7.5" (W) x 4.1" (H)   |
| <b>Weight</b>                             |  | 4.2 kg (9.3 lbs) max   |