



# ALB150 Series

Palm Size 6W  
X-Band Block-Up Converter

Agilis ALB150 Series Feed Mount 6W X-BUC is small and lightweight BUC suitable for mobile applications and satellite uplink applications. The BUC has excellent thermal efficiency and consumes less power.

Innovative and efficient thermal design makes this BUC the smallest in the world.

## Features

- Low cost and compact package
- Direct antenna mounting
- Excellent linearity
- Extremely reliable
- High power efficiency
- Excellent phase noise characteristics
- Low spurious
- Automatic temperature compensation feature
- Wide operating temperature range -40°C to +60°C
- RoHS Compliant
- Waterproof with IP65 standard

## Quality Assurance

100% of all BUCs go through stringent quality checks in addition to well defined Electrical Stress Screening to ensure operation in harsh outdoor environments. The BUCs are also subjected to seal test for water ingress verification.

## Reliability

Field proven under harsh environment conditions, Agilis ODUs can withstand temperature ranging from -40°C to +60°C with up to 100% humidity.

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## Technical Specifications

### RF Specifications

<b>Transmit Frequency</b>	7900MHz to 8400MHz
<b>IF Frequency Range</b>	950MHz to 1450MHz
<b>Output Power @ P1dB</b>	37.8dBm
<b>Small Signal Gain</b>	56dB min
<b>Gain Flatness</b>	±2dB over the O/P frequency band
<b>Gain Variation</b>	±2dB over the operating temperature range
<b>Inter Modulation</b>	-27dBc @ Relative to combine power of two carriers at 3dB total power backoff from Rated Output power
<b>O/P spurious</b>	According to EN301428
<b>Phase Noise @ Offset</b>	
<b>1KHz</b>	-73dBc/Hz max
<b>10KHz</b>	-83dBc/Hz max
<b>100KHz</b>	-93dBc/Hz max
<b>I/P VSWR</b>	2.0:1 max
<b>O/P VSWR</b>	2.0:1 max

### DC Power Requirement

<b>Prime Power</b>	24VDC Nominal (Range 18V to 60V)
<b>Power Consumption</b>	65W @ 24VDC input
<b>Power Supply Interface</b>	Common input via IFL

### Interfaces

<b>IF Input Interface</b>	50Ohms N-type Female / 75Ohms F-type Female (optional)
<b>Output Interface</b>	WR 112G

### External Reference Requirement

<b>Frequency</b>	10MHz
<b>Power</b>	-5dBm to +5dBm
<b>External reference phase noise requirement @ frequency offset</b>	
<b>1KHz</b>	-150dBc/Hz
<b>10KHz</b>	-155dBc/Hz
<b>100KHz</b>	-160dBc/Hz

### Environmental

<b>Operating Temperature</b>	-40°C to +60°C
<b>Humidity</b>	Up to 100% Weather protection sealed to IP65

### Mechanical

<b>Size</b>	153L x 103W x 70H mm
<b>Weight</b>	1.6kg
<b>Color</b>	White Powder Coat

### Compliance Standard

<b>IEC 609501-2nd Edition</b>	International Safety Standard for Information Technology Equipment
<b>ETSI EN 301 489-12</b>	Electromagnetic Compatibility and Radio Spectrum Matters (ERM); ElectroMagnetic Compatibility (EMC) Standard for radio equipment and services; Part 12: Specific conditions for Very Small Aperture Terminal, Satellite Interactive Earth Stations operated in the frequency ranges between 4GHz and 30GHz in the Fixed Satellite Service (FSS)
<b>ETSI EN 301 489-1</b>	Electromagnetic Compatibility and RadioSpectrum Matters (ERM); ElectroMagnetic Compatibility Standard for Radio Equipment and Services
<b>FCC Class A</b>	Two levels of radiation and conducted emissions Limits for unintentional radiators (FCC Mark)

Note: All specifications are subject to changes without notice.  
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