



## ALB129 Series

Palm Size 5W  
Ku-Band Block-Up Converter

Agilis ALB129 Series Feed Mount 5W Ku-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

Transmit Frequency	13.75GHz – 14.5GHz
IF Frequency Range	950MHz to 1700MHz
LO Frequency	12.80GHz
Output Power @ P1dB	37dBm
Small Signal Gain	60dB nominal
Gain Flatness	±2.5dB over the O/P frequency band
Gain Variation	±2dB over the operating temperature range
Inter Modulation	-27dBc @ Relative to combine power of two carriers at 3dB total power backoff from Rated Output power
O/P spurious	According to EN301428
Phase Noise @ Offset	
1KHz	-73dBc/Hz max
10KHz	-83dBc/Hz max
100KHz	-93dBc/Hz max
I/P VSWR	2.0:1 max
O/P VSWR	2.0:1 max

### DC Power Requirement

Prime Power	24VDC Nominal (Range 18V to 36V)
Power Consumption	62.4W @ 24VDC input
Power Supply Interface	Common input via IFL

### Interfaces

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

### External Reference Requirement

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

### Environmental

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

### Mechanical

Size	134L x 99W x 52H mm / 5.3 x 3.9 x 2.0 in 134L x 99W x 65H mm / 5.3 x 3.9 x 2.56 in (with Fan)
Weight	0.8kg / 1.8lbs 0.85kg / 1.87lbs (with Fan)
Color	White Powder Coat
Cooling	Forced-air Cooling

### Compliance Standard

IEC 609501-2nd Edition	International Safety Standard for Information Technology Equipment
ETSI EN 301 489-12	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)
ETSI EN 301 489-1	Electromagnetic Compatibility and RadioSpectrum Matters (ERM); ElectroMagnetic Compatibility Standard for Radio Equipment and Services
FCC Class A	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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