ALB129 Series

Palm Size 1W/2W/3W
Ku-Band Block-Up Converter

This small and lightweight BUC is ideal for mobile and satellite uplink applications.

Designed to be mounted on the feed horn, the 3W BUC has excellent efficiency and consumes less than 24W.

Innovative and efficient thermal design makes this BUC one of the smallest, lightest & most reliable in the industry.

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Features

- Compact and lightweight
- Feed mountable
- Excellent linearity
- Extremely reliable
- High power efficiency
- Excellent phase noise characteristics
- Low spurious
- Wide input D.C voltage range
- Automatic temperature compensation feature
- Wide operating temperature range -40ºC to +60ºC
- 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 -40ºC to +60ºC with up to 100% humidity.

Agilis

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Technical Specifications

RF Specifications

Transmit Frequency	13.75GHz – 14.5GHz
IF Frequency Range	950MHz to 1700MHz
L.O Frequency	12.8GHz
Output Power @ P1dB	30dBm (1W) / 33dBm (2W) / 34.5dBm (3W)
Small Signal Gain	55dB (Typical for 1W) 55dB (Typical for 2W) 58dB (Typical for 3W)
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	
1 KHz	-73dBc/Hz max
10 KHz	-83dBc/Hz max
100 KHz	-93dBc/Hz max
I/P VSWR	2.0:1 max
O/P VSWR	2.0:1 max

DC Power

Prime Power	24VDC (range 19 to 36VDC)
Power Consumption	12W @ 24VDC input (Typical for 1W) 20W @ 24VDC input (Typical for 2W) 20W @ 24VDC input (Typical for 3W)
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

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	-40ºC to +60ºC
Relative Humidity	Up to 100% Weather protection sealed to IP65

Mechanical

Size	124L x 91W x 43H mm / 4.9 x 3.6 x 1.7 in
Weight	0.5kg / 1.1lbs
Color	White Powder Coat

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 Radio Spectrum Matters (ERM); ElectroMagnetic Compatibility Standard for Radio Equipment and Services
FCC Part 15 Class B	Two levels of radiation and conducted emissions Limits for unintentional radiators (FCC Mark)

Note: All specifications are subject to change without notice.
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