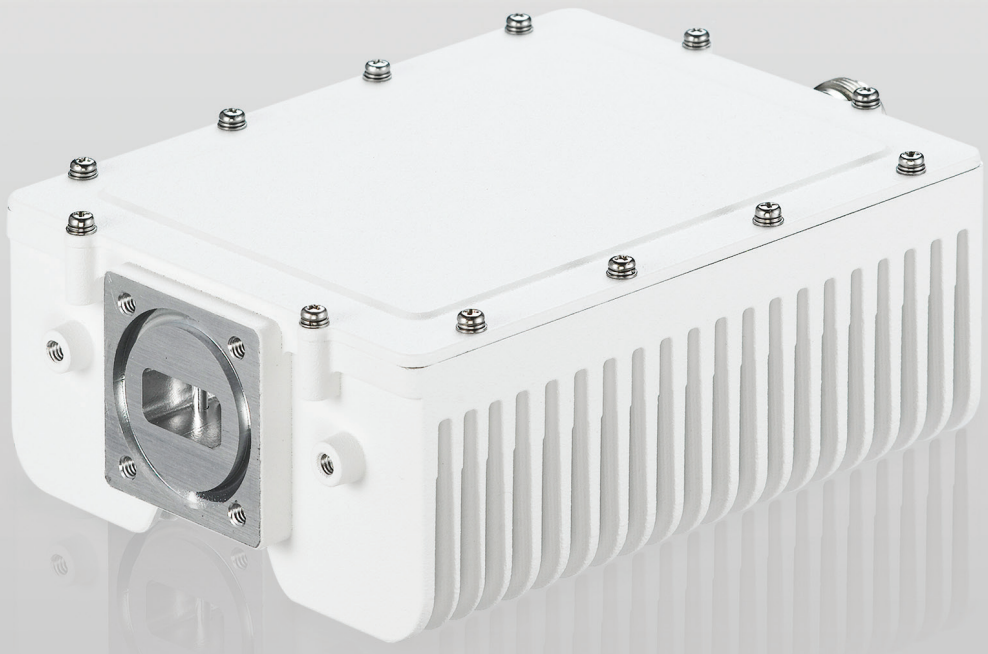

ALB129 Series

Fanless Palm Size 4W / 5W / 6W Ku-Band Block-Up Converter

Agilis ALB 129 Series Feed Mount 4W to 6W Ku Block up converter (BUC) is a small and light weight unit suitable for mobile applications and satellite uplink applications. This BUC has excellent thermal efficiency and consumes less power.

This BUC is innovative and efficient thermal design makes it the most smallest BUC 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 -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

ALB129 Series

Fanless Palm Size 4W / 5W / 6W Ku-Band Block-Up Converter

Technical Specifications

RF Specifications

Transmit Frequency	13.75GHz – 14.5GHz
IF Frequency Range	950MHz to 1700MHz
LO Frequency	12.80GHz
Output Power @ P1dB	36dBm (4W) / 37dBm (5W) / 37.8dBm (6W)
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 back-off 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 15V to 32V)
Power Consumption	34W @ 24VDC input (4W) 39W @ 24VDC input (5W) 55W @ 24VDC input (6W)
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	-40ºC to +60ºC
Humidity	Up to 100% Weather protection sealed to IP65

Mechanical

Size	142.5L x 99W x 44H mm (4W) 148.5L x 129W x 56H mm (5W/6W)
Weight	0.9kg (4W) 1.2kg (5W/6W)
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 RadioSpectrum Matters (ERM); ElectroMagnetic Compatibility Standard for Radio Equipment and Services

Note: All specifications are subject to changes without notice. Rev. 200218

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