

ALB129 Series

Palm Size 5W / 6W / 7W Ku-Band Block-Up Converter

Agilis ALB129 Series Feed Mount 5W to 7W 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 (5W) / 37.8dBm (6W) / 38.5dBm (7W)

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

Output pow

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 65H mm / 5.3 x 3.9 x 2.56 in

Weight 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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