



ALB110 Series

100W
Ka-Band Block-Up Converter

This Agilis High Power Ka-Band BUC is ideal for mobile and satellite uplink applications. The BUC has excellent efficiency and works on a wide range input AC power supply. Innovative and efficient thermal design makes this BUC one of the smallest, lightest and most reliable in the industry.

With redundancy-ready feature, the unit can be easily configured to work in 1:1 redundant mode.

Features

- Excellent linearity
- Extremely reliable
- High power efficiency
- Excellent phase noise characteristics
- Low spurious
- Forward power detection function
- Remote monitor & control through RS232/RS485 and Ethernet (SNMP & HTTP)
- Wide input AC voltage range
- Automatic fault identification & alarm generation
- Automatic temperature compensation feature
- Redundancy (Built-in)
- Wide operating temperature range -40°C to +60°C
- RoHS compliant
- Waterproof
- LED indicator for BUC status

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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Compact 100W
Ka-Band Block-Up Converter

Technical Specifications

RF Specifications

Transmit Frequency	29.0GHz to 31.0GHz
IF Frequency Range	950MHz to 1950MHz
Output Power @ MOP	50dBm
Small Signal Gain	80dB (min)
Gain Flatness	±2.0dB typ
Gain Flatness over 40MHz	±1.0dB typ
Gain Variation	±2dB over the operating temperature range
Phase Noise @ Offset	
1KHz	-75dBc/Hz typ
10KHz	-85dBc/Hz typ
100KHz	-95dBc/Hz typ
Spurious	-60dBc typ
I/P VSWR	1.5:1 max
O/P VSWR	2.0:1 max

DC Power

Prime Power	90 ~ 264VAC
Power Consumption	1000W

Interfaces

IF Input Interface	50Ohms N-type Female / 75Ohms F-type Female (optional)
Output Interface	WR28 grooved

Internal Reference

Frequency	10 MHz (50MHz optional)
Power	-5dBm to +5dBm
External reference phase noise requirement @ frequency offset	
1KHz	-150dBc/Hz
10KHz	-155dBc/Hz
100KHz	-160dBc/Hz

Monitor & Control

Monitor	BUC temperature LO unlocked alarm Status alarm RF Output Power detection LED indication
Control	Adjustable gain with 0.5dB step size RF output mute
Interface	RS232/RS485, Ethernet (SNMP & HTTP)
Tx Redundancy	Built-in Redundancy

Environmental

Operating Voltage	-40°C to +60°C
Power Supply Interface	Up to 100% Weather protection sealed to IP65

Mechanical

Size	540L x 470W x 220H mm
Weight	30kg
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 4 GHz and 30 GHz 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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